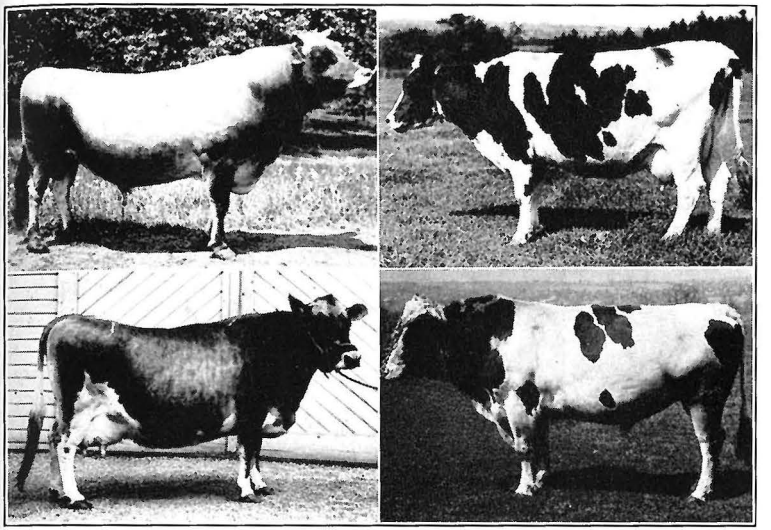
The Use of UNPROVED SIRES

by C. C. HAYDEN



"LIKE BEGETS LIKE"—
Hambie's Experiment and daughter (left)
Tina Clay De Kol Lad and daughter (right)

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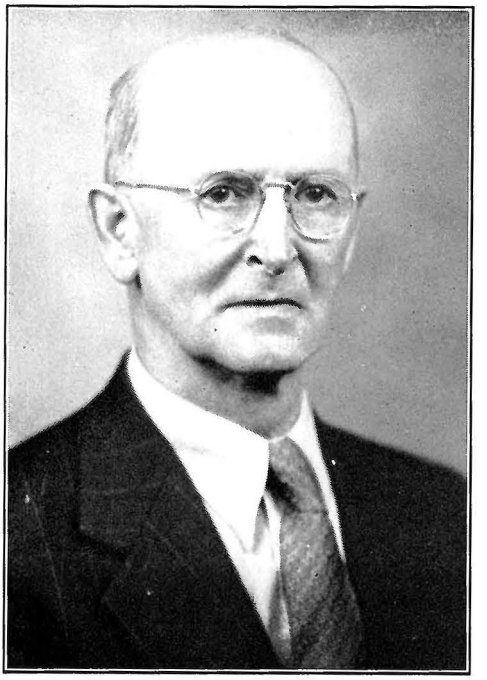


C. C. Hayden

This bulletin, of which Mr. Hayden is the author, represents many years of observation and study on the problem of dairy cattle improvement through the selection of young sires.

Mr. C. C. Hayden joined the staff of the Ohio Experiment Station in 1912 as Chief of the Department of Dairy Industry. This position was held by Mr. Hayden until December 31, 1941 when he relinquished administrative duties but retained active status in the Department. He has faithfully devoted his life to the problems of the dairy industry and has inspired those associated with him to do likewise.

CONTENTS

THE USE OF UNPROVED SIRES

C. C. HAYDEN[1]

This is a brief history of the Jersey and Holstein-Friesian sires used in the Ohio Agricultural Experiment Station herds over a period of about 40 years.

For many years, dairymen have been advised to use proved sires as a method of improving their herds but, after all these years, there are not enough good proved sires to supply even the artificial insemination associations and so dairymen must continue to prove sires. The results presented here indicate what may be expected in the way of improvement when reasonable care is taken in selecting sires while they are calves, or before their progeny come into lactation. Records of breeding and production in the Experiment Station herds since about 1904 are available for this study.

The herds have not been large and not all of the female calves could be kept; therefore, the sires did not have large numbers of daughters completing 1 year of production. The cows were kept especially for experimental purposes and good production with fair type has been the aim rather than forced high production or approved type. Good rations were usually fed to heifers during their first lactations but they were not heavily fed to obtain high records. In almost all cases, they were milked but twice daily. Their first records have been used in this report as the measure of their productive ability because later records were too often influenced by special feeding experiments. The actual days in milk up to 365 have been used instead of correcting for the number of days in milk. The days in milk indicate the persistency of lactation. Practically all were 2-year-olds (mostly junior) and no age corrections were made.[2] The breeding on the female side was almost continuous, as almost no females were added to the herd during the use of the first 10 sires.

[1]The author is greatly indebted to the many persons who, through the years, have participated in planning the work, caring for the animals, and collecting and recording the data from which this history was taken.

[2]To convert these records to mature equivalents multiply by 1.225 (American Jersey Cattle Club factor) for Jerseys and by 1.326 (Government factor) for Holsteins. The results will be a little low because the factors are averages for junior and senior 2-year-olds and there were more junior than senior records.

The daughters of the first two or three sires in each breed were probably not fed quite as well as those of later sires. The milk from all cows was weighed and recorded at each milking and weekly composite or one day samples were tested four times each month. A few of the daughters of some of the earlier sires were placed on Register of Merit or Advanced Register Semi-Official tests with extra feeding and milkings. These records were made in later lactations and were not used in the comparisons but attention is called to some of them. Many other good records could have been made in this way.

In reading this history it should be kept in mind that the records used are by heifers on regular feed and milked twice daily. Any heifer which produces above 300 pounds of fat should make a fair to good cow. The bull which begets daughters equal to their dams in production transmits higher production than do the dams because the dams have been culled for production. The pictures used in the figures were taken, in most cases, for other purposes and most of them are not of the best kind for this history. In most cases they were taken when the udders were not full or even during the dry period and hence do not properly show udder development.

JERSEY SIRES

Jersey Sire No. 1—St. Lambert's Kid 66735

Born May 10, 1903

Sire

ST. LAMBERT'S RIOTER KING 54896
8 daughters in A and AA average
7,863 M.—411 F.
6 R. M. sons

- **KING OF ST. LAMBERT 15175**
  - **IDA'S RIOTER OF ST. LAMBERT**
    4 R. M. sons
  - **ALLIE OF ST. LAMBERT 24991**
- **ST. LAMBERT RIOTER LASS 106220**
  - **ST. LAMBERT BOY 17408**
    Daughter
    7,329 M.—410 F.
  - **LETTY RIOTER 73475**

Dam

St. LAMBERT'S FAWN HUGO 176924

- **ST. LAMBERT BOY 4th 57778**
  Daughters
  7,801 M.—369 F. (11-8)
  6,628 M.—370 F. (6-11)
  4 R. M. sons
  - **ST. LAMBERT BOY 17408**
    (See above)
  - **ST. LAMBERT'S EMSIE 145929**
- **IDA'S RIOTRESS FAWN 152043**
  - **ST. LAMBERT BOY 17408**
    (See above)
  - **IDA FAWNETTE 113936**

The first complete record available for a Jersey sire used in the Station herd is that of St. Lambert's Kid, born in 1903. He was bred by Judge Bradbury of Pomeroy, Ohio, who had one of the good Jersey herds of that day. He was bought as a calf and at that time not many production records were kept thus selection on the basis of production was quite difficult. St. Lambert's Kid was a son of St. Lambert's Rioter King 54896 who had eight daughters with records averaging 410 pounds of fat. He also had six sons with tested daughters. There is no record of the production of Kid's dam or granddams.

This bull sired 10 daughters which completed one or more records. These 10 daughters averaged, in their first records, 3,998 pounds of milk and 223 pounds of fat in 345 days. Their dams, when more mature, produced an average 5,425 pounds of milk and 304 pounds of fat. Their first records were not available. The daughter-average was 1,427 pounds of milk and 81 pounds of fat less than that of the dams. Two daughters bred back to this bull produced daughters inferior to themselves.

Considered from every standpoint, St. Lambert's Kid was an undesirable sire. A practical breeder should have discarded all of his daughters and started anew but the Experiment Station continued with them.

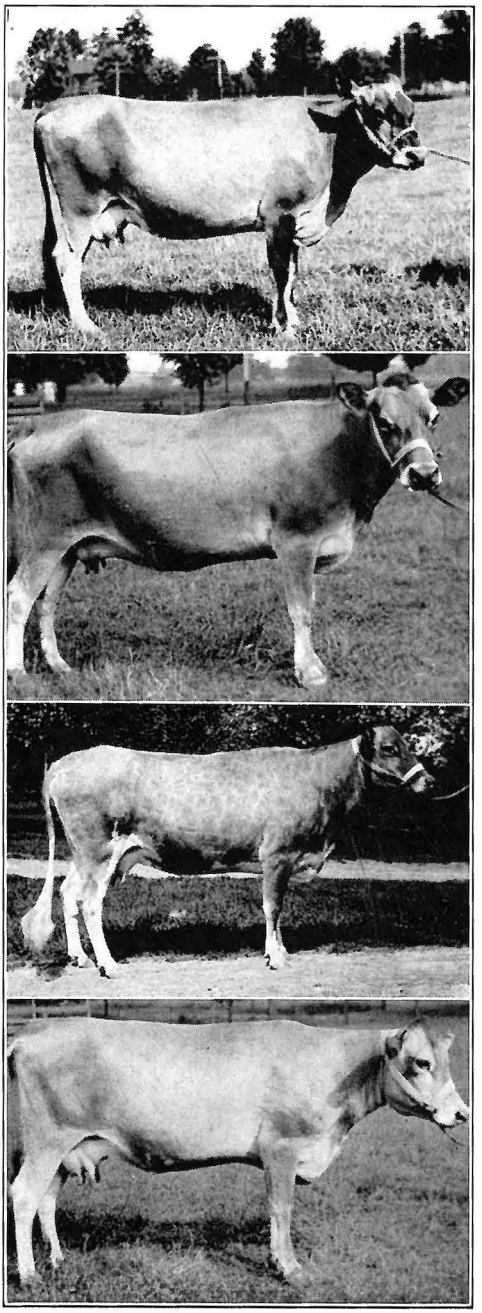


Fig. 1.—Daughters of St. Lambert's Kid.

Jersey Sire No. 2—Hambie's Experiment 85053

Born May 16, 1908

Sire

IMPORTED KING OF HAMBIE 65298
6 R. M. daughters
7,527 M.—302 F. (3- 4)
6,737 M.—347 F. (3- 6)
6,616 M.—307 F. (2- 8)
4,951 M.—269 F. (1-11)
6,365 M.—335 F. (2- 8)
5,054 M.—281 F. (2- 4)
Made in regular herd work.
10,793 644 R. M.
10,061 615 R. M.
3 R. M. sons

EMINENT 69631
Considered a great sire.
27 R. M. daughters averaged 477 F.
4 above 500 F.

IMPORTED INTEREST 175430
1.1 lb. butter daily 268 days after calving.
Maternal granddam of Interested Prince of Sibley Farms.

IMPORTED GOLDEN FERN'S LAD 65300
8 R. M. daughters
13 or more R. M. sons

EMINENCE F. 7124 C.
Great-granddam of Stockwell.

GAMBOGE HERO P. 2416 C.

MAGGIE O'MARE F. 8403 C.
2.3 lb. butter in 24 hrs.

VEXER 20889
18 privately tested daughters.
From 14.5 to 23.4 lb. butter.
Sire of Tormentor's Jubilee.

EXPERIMENTOR 37598

THORNFEAF 39969
15.7 lb. butter
Dam of 3 tested daughters.

Dam

TINY DIXON 142041
Said to milk 40 pounds and to be a very persistent milker.

KING COTTON 25391
"All daughters of a kind and good milkers."
"Ohio's Greatest Sire."

TILLIE COTTON 103701

POGIS YOLANDE 70923

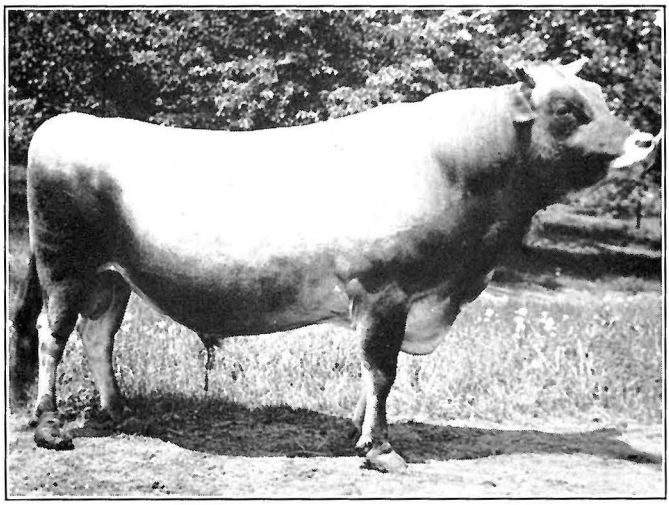


Fig. 2.—Hambie's Experiment

Hambie's Experiment was bred by Jacob White of Greenfield, Ohio, and was born in 1908. Mr. White's herd was one of the good ones in Ohio at that time. Hambie was a son of Imported King of Hambie who was a son of Eminent and Imported Interest, both noted animals in their day. His dam was Tiny Dixon, a granddaughter of Vexer who had 18 or more privately tested daughters. Tiny was said to have produced 40 pounds of milk daily when fresh and to have been a very persistent milker but she had no recorded tests.

Hambie sired 37 male and 36 female calves. Twenty-four of his daughters completing one lactation averaged, in their first records, 5,100.8 pounds of milk and 268.3 pounds of fat in 353 days. This was 360.2 pounds of milk and 5.5 pounds of fat more than their dams produced. His 24 daughters averaged 1,102 pounds of milk and 45 pounds of fat more than all the daughters of St. Lambert's Kid. Eleven daughters out of daughters of St. Lambert's Kid

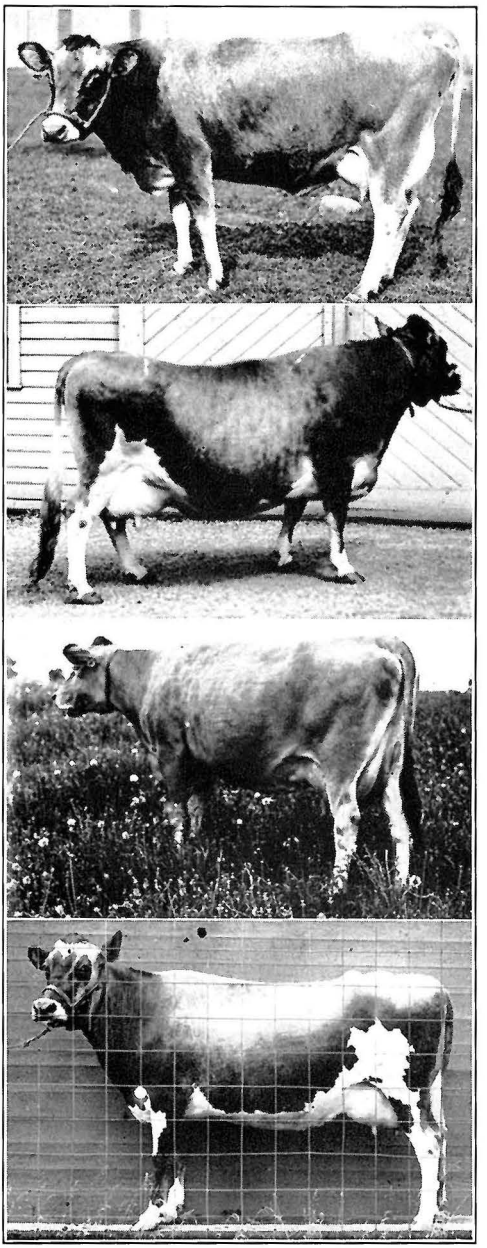


Fig. 3.—Four daughters of Hambie's Experiment.

exceeded their dams by 1,195 pounds of milk and 41 pounds of fat. Eight of Hambie's daughters on Register of Merit tests (milked two and three times daily) averaged 9,712 pounds of milk and 536 pounds of fat. The highest record was 11,700 pounds of milk and 618 pounds of fat in 365 days. The daughters were better in type than their dams but were inclined to carry more flesh than is commonly considered desirable in dairy cattle. He became sterile at 8 years of age due to an infection and was sold for slaughter.

Jersey Sire No. 3—Bessie's Lad of the Campus 101843

Born April 5, 1911

Sire

BESSIE BATES LAD 78296
Daughters
8,767 M.—444 F. (2-)
7,481 M.—346 F. (2-4)
9,095 M.—436 F. (3-8)
5,569 M.—324 F. (2-3)
7,881 M.—396 F. (2-4)
10,367 M.—480 F. (4-3)

FAIRY'S LAD 68013
Daughters
439 F.
380 F.
479 F.
570 F.
611 F.

BESSIE BATE 155373
13,896 M.—680 F.

KING OF ST. LAMBERT .6th

BONNY FAIRY 100498
16 lb. 9 oz. butter—7 Days

MISSOURI RIOTER 3d
Daughters
13,896 M.—680 F.
12,729 M.—634 F.
6,830 M.—364 F.

DAZIE BATE 4th 104983

Dam

PEDRO'S RAMAPOSA 181160
11,542 M.—583 F.

MINETTE'S PEDRO 50031
Daughters
11,063 M.—605 F.
8,487 M.—469 F.
11,542 M.—583 F.
—545 F.
6,773 M.—376 F.
6,077 M.—370 F.
6,594 M.—371 F.

MISSOURI RAMAPOSA 155372
12,729 M.—634 F.

PEDRO'S ROYAL MARJORUM 28560
1st at Chicago World's Fair, 1893.

PEDRO'S MINNETTE 66092
19 lb. 8 oz. butter—7 Days

MISSOURI RIOTER 3d
(See above)

VIDA MILLER 134499

This bull was bred at the University of Missouri. He was bought as a calf in 1911 and was kept until 1920. The exact cost of this and the preceding bulls is not available but neither cost more than $100, plus transportation. He was backed by better records than the preceding sires, his sire having tested daughters with records ranging from 324 to 480 pounds of fat and his dam and two

granddams having records of 583, 680, and 634 pounds of fat. The grandsires each had Register of Merit daughters as shown in the pedigree. This bull sired 34 male and 31 female calves in the herd. Nine of his daughters averaged, in their first lactations, 5,615 pounds of milk and 295 pounds of fat in 357 days. This exceeded their dams by 305 pounds of milk and 20.1 pounds of fat. All but one of the dams were by Hambie (Sire No. 2). Five daughters later placed on Register of Merit tests and milked two and three times daily averaged 10,889 pounds of milk and 585 pounds of fat. One daughter (215) made a Gold Medal record of 14,903 pounds of milk and 734 pounds of fat. The daughters were inclined to be smaller and to carry less flesh than the daughters of the preceding sire. Bessie's Lad was considered just a fair sire.

Nearly all of the Register of Merit tests made at the Station on daughters of later sires were made on regular work and few of these are reported here.

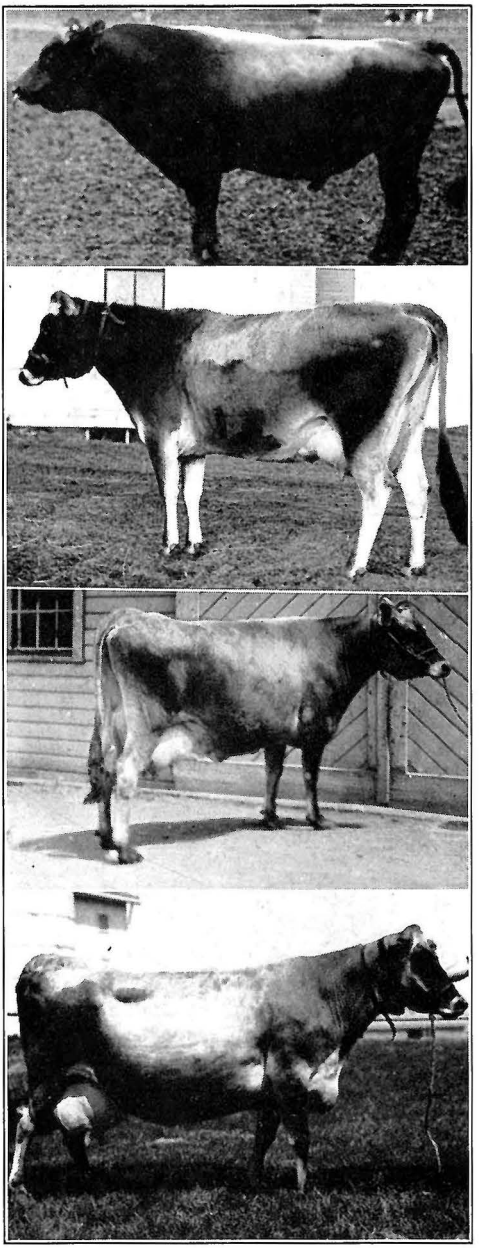


Fig. 4.—Bessie's Lad of the Campus and daughters. The lower daughter is a Gold Medal cow.

Jersey Sire No. 4—Choice Owl 175407

Born September 14, 1918

Sire

ALMA KING'S CHOICE 118736

4 Jr. 2-year-olds:
7,946 M.—377 F. AAA 2X
6,519 M.—343 F. AAA 2X
6,786 M.—327 F. AAA 2X
6,811 M.—349 F. AAA 2X

A paternal half-sister has a Tested Dam rating of 14,776 pounds of milk and 748 pounds of fat on 1 son and 7 daughters.

SUE B'S OMEGA CHOICE 105522

Daughters
11,111 M.—645 F.
12,317 M.—575 F.
11,391 M.—597 F. AAA
12,229 M.—583 F. AAA
8,261 M.—402 F.

MARY FROM SIBLEY'S CHOICE 263809

G. M. cow.
15,844 M.—835 F.
17,401 M.—825 F.
13,183 M.—635 F.
14,030 M.—640 F.
Tested Dam 3 daughters averaged
12,684 M.—684 F.

SIBLEY'S CHOICE 83040
S. and G. M.
5 S. and G. M. daughters
Tested Sire with 23 rated
12,635 M.—662 F.

SUE B's OMEGA 233718
One R. M. son
Sister:
14,148 M.—642 F.

SIBLEY'S CHOICE 83040
(See above)

MARY JANE BROWN 234807
7,637 M.—387 F.
Tested Dam, 1 son, 2 daughters averaged
13,334 M.—639 F.

TEMISIA'S OWL 72224
Daughters
17,056 M.—854 F.
—M. M.
16,236 M.—841 F.
15,147 M.—875 F.
Slaughtered before his value was known.

MARIGOLD SUSETTE 2d 207142

STOKE POGIS OF PROSPECT 29121
First with Prog. at Pan-Amer. Expo., Buffalo.
16,275 M.—854 F.
15,572 M.—849 F. G. M.

PRIDE'S OLGA 4th 60870
6 tested daughters with average of 801 F.

Dam

PRIDE MARIGOLD 3d 279454

7,403 M.—379 F.
Began 2 months after fresh, 2 milkings.
Appeared capable of high record.

SUSETTE 2d's OWL 83817

Daughters, 2-year-olds, 2 milkings.
7,430 M.—374 F.
6,548 M.—344 F.
7,463 M.—379 F.

PRIDE MARIGOLD 143339

50 pounds milk in day.
Full sister:
16,275 M.—854 F.

Fig. 5.—Choice Owl

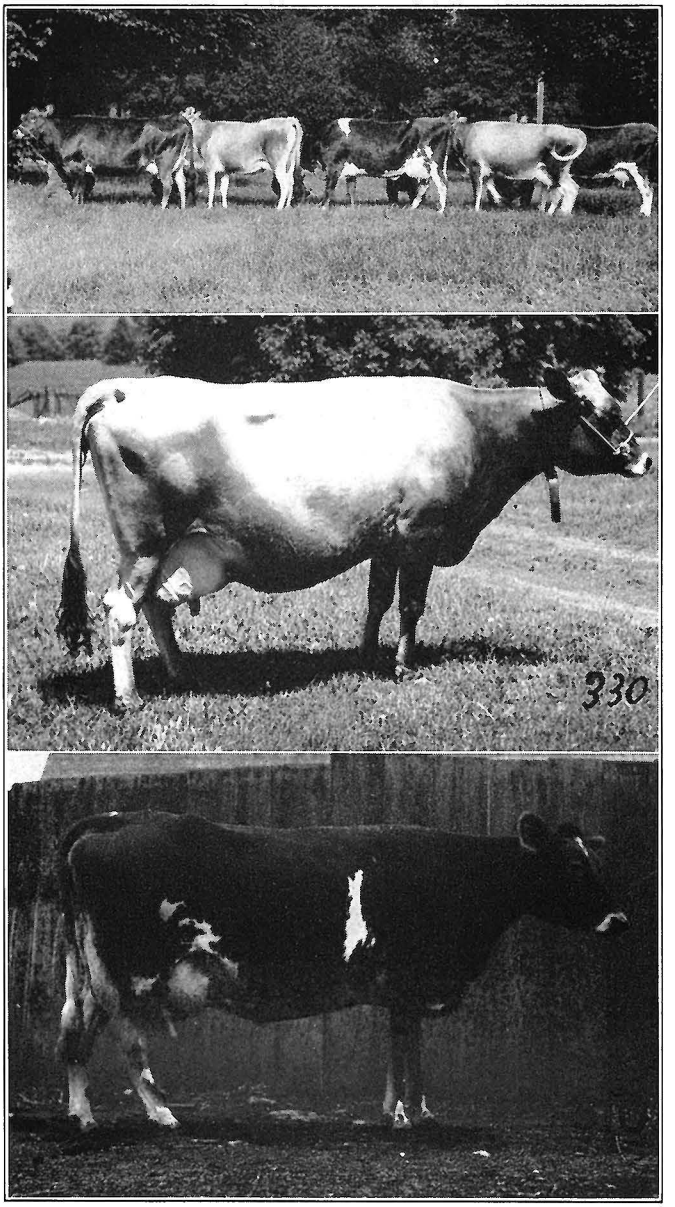


Fig. 6.—Daughters of Choice Owl

Choice Owl was bought as a senior calf for $250. The breeder was W. H. O. Goist of Girard, Ohio. This bull's pedigree was full of creditable records. He traced three times to Spermfield Owl, a Gold Medal sire and one of Sibley Farms' great sires, twice through a Gold Medal son. He also traced on the dam's side to Stoke Pogis of Prospect who, with his daughters, was first at the Pan-American Exposition at Buffalo. Choice Owl's dam was a fine large cow with a junior 2-year-old record of 379 pounds of fat. This test began 2 months after calving and she was milked twice daily. She looked capable of a very large record but failed to breed and was not retested. Her dam produced 50 pounds of milk in a day and had a full sister with a record of 16,275 pounds of milk and 854 pounds of fat. Choice Owl's paternal granddam had four records of 835, 825, 635, and 640 pounds of fat and up to 17,400 pounds of milk. She was a daughter of Sibley's Choice who had five Gold Medal daughters.

Choice Owl sired 33 male and 35 female calves in the herd. Twenty of these completed first records which averaged 6,989 pounds of milk and 374 pounds of fat. Seventeen of these daughters whose first records averaged 7,125 pounds of milk and 382.6 pounds of fat in 349 days produced 615.9 pounds of milk and 40 pounds of fat more than their dams in 341 days. Four of his daughters, out of daughters of Hambie's Experiment, gained 1,440 pounds of milk and 86.3 pounds of fat over their dams. Seven daughters out of daughters of Bessie's Lad of the Campus averaged 792 pounds of milk and 52 pounds of fat more than their dams. All daughters averaged 1,374 pounds of milk and 78.9 pounds of fat more than all daughters of Bessie's Lad of the Campus.

Choice Owl's daughters were not as good in type as the daughters of the following sire. They were coarser and rougher and their udders were more inclined to be a little low at the rear. He is listed as a Tested Sire with a rating on 18 daughters of 10,600 pounds of milk and 583 pounds of fat. He was kept in service until 11 years of age. He gave the highest production of all Jersey sires used to date (1945). Two daughters (310 and 330) made Silver Medal records and one made a Gold Medal record. In eight Register of Merit records, No. 330 (see fig. 5) averaged 518 pounds of fat and, except for a short time in the first lactation, was milked twice daily for all eight records. Her life record was 97,722 pounds of milk and 5,142 pounds of fat, Station records.

Jersey Sire No. 5—Maplewood's Interested Owl 151916

Born May 17, 1916

Sire

OWL'S MODEL PRINCE 132871
Daughters
6,671 M.—438 F. (2 yr.)
8,603 M.—430 F.
10,080 M.—549 F.
10,616 M.—541 F.
2 R. M. sons

INTERESTED PRINCE 58224
A Tested Sire with 46 rated
10,005 M.—537 F.
A Superior Sire.
13 R. M. sons
Daughter
19,695 M.—839 F.

ALEXIE
Second on Island of Jersey 1899.

COMPOUND INTEREST
48 pounds of milk in a day.

OWL'S MODEL INTERESTED TONES 252107
5,904 M.—347 F.
Junior 3-year-old

SPERMFIELD OWL
A G. M. sire.
48 daughters averaged:
10,803 M.—569 F.
1 daughter
16,457 M.—993 F.

MODEL INTERESTED TONES
6,678 M.—395 F.

Dam

SUE B 2d's CHOICE 323897
12,317 M.—575 F. AA
Tested Dam with 1 son.
7 daughters rated
14,776 M.—748 F.
A great breeding cow.

SUE B's OMEGA CHOICE 105522
Daughters
11,111 M.—645 F.
12,317 M.—575 F.
11,391 M.—597 F.
12,231 M.—585 F.
1 R. M. son

SIBLEY'S CHOICE 83040
S. and G. M.
5 G. M. and 5 S. M.
23 daughters averaged:
12,633 M.—662 F.

SUE B's OMEGA 233718
Not tested.

SUE B 2d 210586
14,149 M.—642 F.
Tested Dam with 3 daughters.
10,172 M.—492 F.

MAGYRLAND'S DUKE
One with
14,149 M.—642 F.

SUE B

Maplewood's Interested Owl was a proved sire—a Tested Sire with a rating on 16 daughters of 12,720 pounds of milk and 631 pounds of fat. He was bought at 8 years of age at a cost of $500 and was the only proved sire bought until 1943. His effect on the herd has been negligible. He soon failed as a breeder and left only two daughters in the herd. These two daughters averaged in their first lactations 5,896 pounds of milk and 289 pounds of fat, one being fed a poor ration. One daughter (314) later, on Register of Merit test and milked twice daily, produced 11,958 pounds of milk and 592 pounds of fat. She became the dam of Sire No. 8.

This bull was a grandson of Interested Prince and a son of the great breeding cow, Sue B 2d's Choice with seven Register of Merit daughters and two good sons. The records of the two daughters

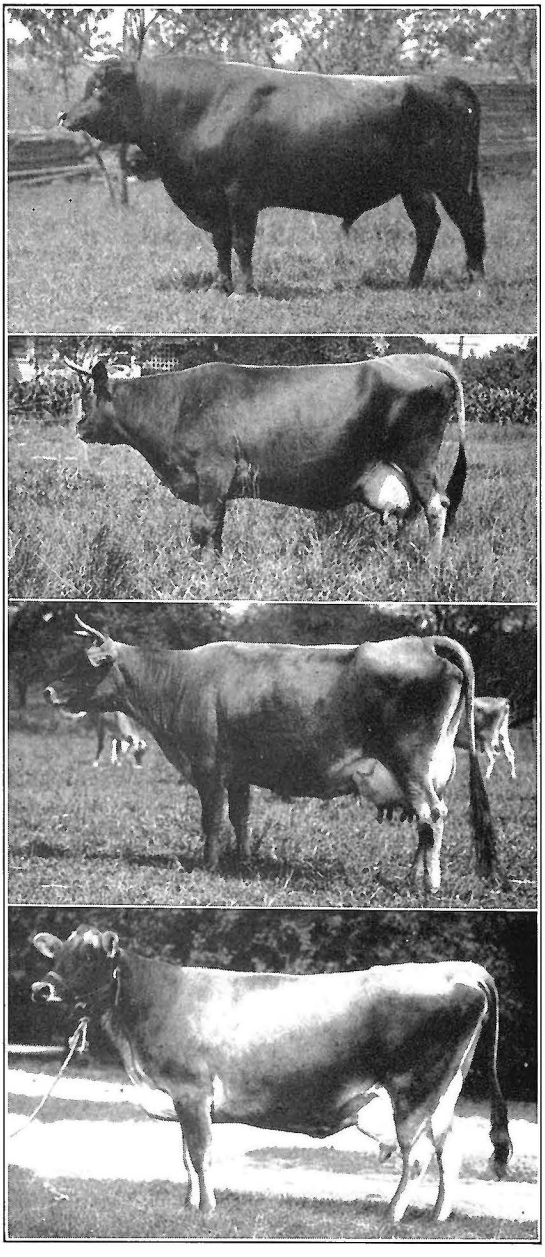


Fig. 7.—Maplewood's Interested Owl and daughters. See also dam of Jersey Sire No. 7 (page 23). The two upper daughters were not in the Station herd.

are not used in the comparisons or the summary because of the small effect on the herd and because this study was not intended to include proved sires. A second proved sire was obtained in 1943 but he left only one daughter and is not considered in this report.

Good, healthy, usable proved sires are very desirable but they are difficult to obtain and are more apt to become unruly and fail as breeders than young sires, therefore, they should be selected with care.

Jersey Sire No. 6—Dean Hill Owl 255587

Born December 22, 1925

Sire

OXFORD LAD'S OWL OF DEAN HILL 147267
Tested Sire with 46 daughters averaging
9,791 M.—569 F.
11 daughters won 14 S. M. and one a G. M.
6 were state champions in production.

OXFORD LAD'S PROGRESS 92916
S. M. Tested Sire
15 daughters averaged
10,587 M.—562 F.
5 R. M. sons

MODEL'S OXFORD LAD 66518
Tested Sire 11 daughters averaged
9,405 M.—445 F.
5 R. M. sons

SPERMFIELD OWL'S BELLE 194051
9,877 M.—545 F.
12,268 M.—636 F.
Daughter with 596 F.

OWL INTEREST VEDA CHOICE 282548
10,172 M.—492 F.
12,225 M.—577 F.
1 S. M. son
2 R. M. daughters

SIBLEY'S CHOICE 83040
5 S. M. daughters
5 G. M. daughters

OWL INTEREST VEDA 193942
8,014 M.—471 F.
2 R. M. daughters
2 R. M. sons

Dam

OWL'S SENSATIONAL STAR OF DEAN HILL 487221
She had 6 records which on two milkings averaged 431 fat.
2 S. M. daughters
1 State Champion
Tested Dam with 1 son and 2 daughters, rated
12,626 M.—698 F.

OXFORD LAD'S OWL OF DEAN HILL 147267
(See above)

OXFORD LAD'S PROGRESS 92916
(See above)

OWL INTEREST VEDA CHOICE 282548
(See above)

SENSATIONAL STAR OF DEAN HILL 411297
7,569 M.—418 F.
7,510 M.—418 F.—273 Da.
Good type.

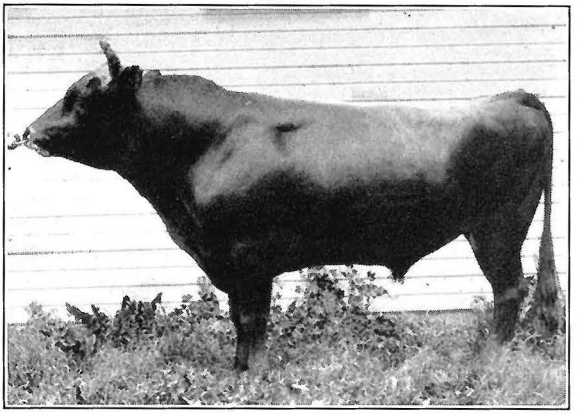
NATADIKE'S NOBLE OF DEAN HILL 138881

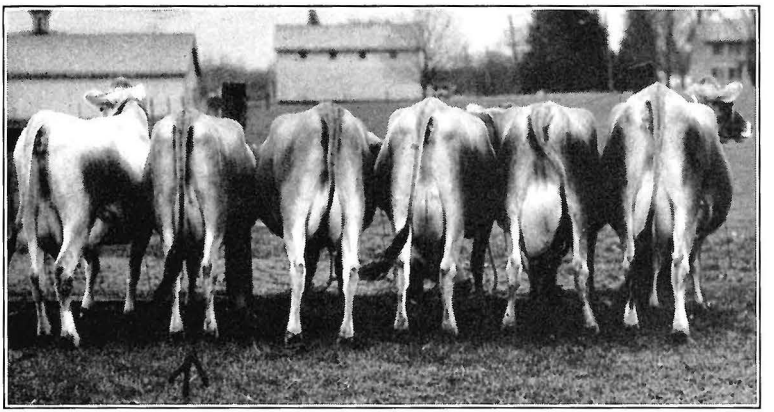
NED'S PRIZE OF DEAN HILL
8,963 M.—499 F.
9,043 M.—455 F.
Tested Dam with 3 daughters rated
8,793 M.—488 F.

Dean Hill Owl was bred at Dean Hill Farm by H. J. Beardsley, Canfield, Ohio. He was contracted before he was born and cost $50 as a calf. He was a son of Oxford Lad's Owl of Dean Hill and out of a daughter of the same animal, the result of mating daughter back to sire. His sire was a prize winner in the show ring and one of the best breeding bulls in Ohio. He had 46 Register of Merit daughters, one with a Gold Medal and 11 with Silver Medal records, milked twice daily. They won six state championships in production. He had a Tested Sire rating on the 46 daughters of 9,791 pounds of milk and 569 of fat. Dean Hill Owl's dam had five Register of Merit records averaging 434 pounds of fat, being milked but twice daily. His full sister had two Silver Medal records and was state champion in production. His seven nearest dams had records ranging from 418 to 636 pounds of fat.

Dean Hill Owl sired 15 male and 26 female calves. Twenty-one daughters in their first records averaged 7,073 pounds of milk and 353 pounds of fat. This is good production, although his daughters produced 182 pounds of milk and 28.5 pounds of fat less than their dams. Fifteen of his daughters which were out of daughters of Choice Owl produced 237 pounds less milk and 32.5 pounds less fat than their dams, which were more or less selected. The average production of all of his daughters was 84 pounds of milk and 20.3 pounds of fat less than that of all daughters of Choice Owl. While the production was a little less the type was improved greatly, especially in udders. All things considered, he was little if any inferior to Choice Owl.

He became a Tested Sire with 20 daughters averaging 10,149 pounds of milk and 522 pounds of fat, most of them being milked twice daily. The other daughter exceeded Register of Merit requirements but was not tested.





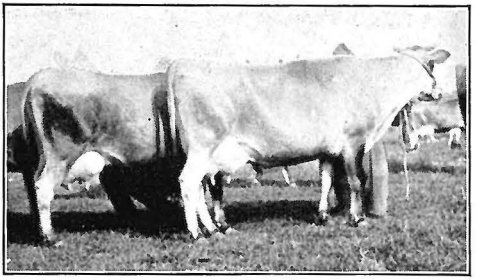


Fig. 8.—Top, Dean Hill Owl, center, daughters of Dean Hill Owl, bottom, dam and full sister of Dean Hill Owl.

Jersey Sire No. 7—Maplewood's Owl 312137

Born September 6, 1928

Sire

OWL'S NOBLE OWL OF DEAN HILL 197616
Daughters not tested in Register of Merit.

OXFORD LAD'S OWL OF DEAN HILL 147267
Tested, S. and G. M. Sire
46 daughters averaged
9,791 M.—569 F.
11 daughters had 14 S. M. and 1 G. M.
6 State champion producers.
A show bull and one of Ohio's best sires.

OXFORD LAD'S PROGRESS
Tested, S. M. Sire
15 daughters averaged:
10,587 M.—562 F.
5 R. M. sons

OWL'S INTEREST VEDA CHOICE 282548
10,172 M.—492 F.
12,224 M.—577 F.
1 R. M. son, 2 R. M. daughters.

NOBLE'S KLONDIKE OF DEAN HILL 358484
8,318 M.—503 F.
2 milkings
7,809 M.—465 F.
2 milkings
Tested Dam
5 daughters averaged:
10,303 M.—637 F.

LASSIE'S NED 99634
4 R. M. daughters, 503, 579, 499, and 430 fat on 2 milkings daily.

NATADIKE 186974
Daughters
503 F.
579 F.

OWL'S MODEL PRINCE 13287
Daughters
10,616 M.—541 F.
10,080 M.—549 F.
8,603 M.—430 F.
6,761 M.—438 F.

SUE B 2d's CHOICE 323897
12,317 M.—575 F.
Tested Dam with 1 son and 7 daughters rated:
14,776 M.—748 F.

Dam

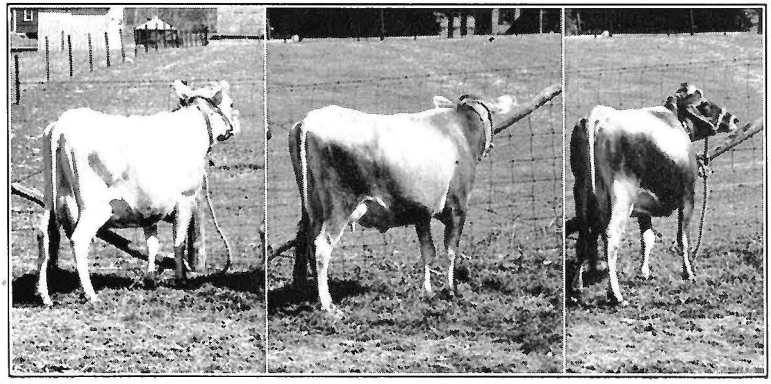
LOTTIE'S GOLDEN INTEREST 489738
9,015 M.—414 F.
15,849 M.—763 F.
A daughter of Jersey Sire No. 5.

MAPLEWOOD'S INTERESTED OWL 151916
Tested Sire
16 daughters averaged:
12,720 M.—631 F.
One with
17,078 M.—794 F.
First at Medina fair.
Get of sire also first.

LOTTIE'S GOLDEN 398438
Daughters
15,849 M.—763 F.
7,626 M.—375 F.

GOLDEN FERN'S OXFORD VICTORY 111327
None tested

ZERA KING'S LOTTIE 291274
Not tested
Had a good dam.



Maplewood's Owl came from the herd owned by George Abbott of Medina County, Ohio. This bull was a grandson of Oxford Lad's Owl of Dean Hill, sire of Sire No. 6, and was out of a daughter of Maplewood's Interested Owl, Sire No. 5. Both of these were excellent proved sires. His dam had two records, 9,015 pounds of milk and 414 pounds of fat as a senior yearling and 15,849 pounds of milk and 763 of fat at maturity. The above statements indicate that he had excellent backing in production. He cost $150 when a calf.

This bull sired 23 male and 19 female calves. He left 12 daughters in the herd which averaged 7,341 pounds of milk and 365 pounds of fat in 341 days as 2-year-olds. Eleven produced 455 pounds of milk and 37 pounds of fat less than their dams. Again, it must be remembered that the dams were more or less selected. He is now listed as a Tested Sire with 10 daughters which averaged 10,517 pounds of milk and 549 pounds of fat on two milkings daily.

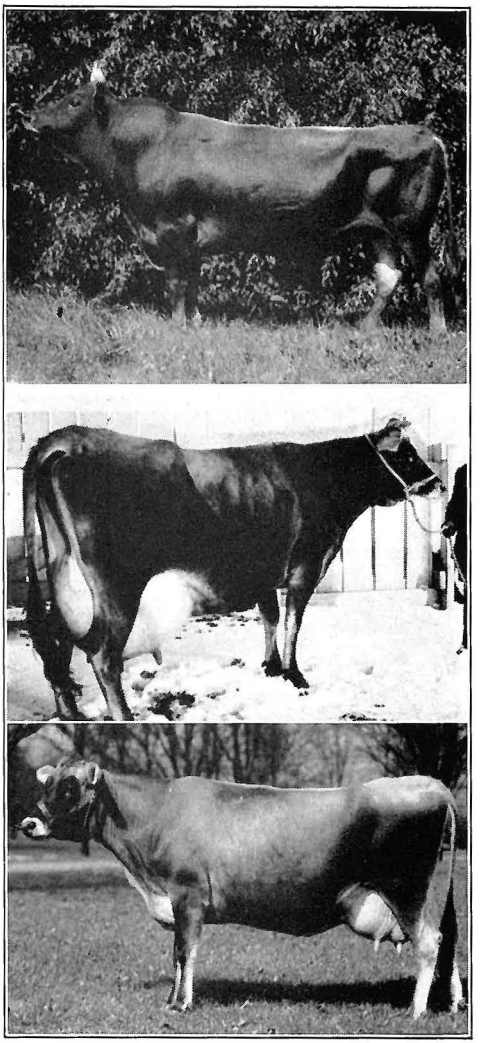


Fig. 9.—Left. Daughters of Maplewood's Owl. Right. Maplewood's Owl, dam, and daughter.

His greatest fault was the short teats of some of his daughters. The daughters were coarser and not equal in type to the daughters of Dean Hill Owl, but they were higher producers.

Maplewood's Owl died quite suddenly at 4 years of age.

Jersey Sire No. 8—Choice Owl 15th 323251

Born July 28, 1929

Sire

CHOICE OWL 175407
Tested Sire
18 daughters averaged
10,600 M.—583 F.

ALMA KING'S CHOICE 118736
3 daughters with 505 F., mature equivalent.

PRIDE MARIGOLD 3d 279454
7,430 M.—379 F. (2-2)
Begun 2½ months after fresh and two milkings.
Capable of large record.

MAPLEWOOD'S INTERESTED OWL 151916
Tested Sire
16 daughters averaged
12,720 M.—631 F.
One with
17,078 M.—794 F.
First and first with get-of-sire at Medina Co. fair 1921.
First get-of-sire 1922.

SUE B'S OMEGA CHOICE
Daughters
11,111 M.—645 F.
12,317 M.—575 F.
11,391 M.—597 F.
12,229 M.—583 F.
Good bull, sold young.

MARY FROM SIBLEY'S CHOICE
Great producing cow.
4 records
13,183 M.—635 F. to
15,844 M.—834 F.
3 daughters averaged
12,684 M.—684 F.

SUSETTE 2d's OWL
2 R. M. daughters, 2 yr.
7,430 M.—347 F.
6,548 M.—344 F.
Two milkings.

PRIDE MARIGOLD
50 pounds of milk in a day.
Full sister with
16,275 M.—854 F.

OWL'S MODEL PRINCE
4 daughters with 438, 430, 549, and 541 F.
2 R. M. sons

SUE B 2d's CHOICE
12,317 M.—575 F.
Tested Dam with 1 son
7 daughters rated
14,776 M.—748 F.

CHOICE OWL 175407
Tested Sire
19 daughters averaged
10,600 M.—583 F.
(Jersey Sire No. 4)

WOOSTER QUEEN POGIS
8,528 M.—516 F. on two milkings.
Her dam—614 F.

Dam

MIO QUEEN 631834
8,501 M.—437 F.
(Jr. 2 yr.)
9,556 M.—468 F.
7,687 M.—368 F. AAA
11,958 M.—592 F.
All on two milkings.

WOOSTER QUEEN POGIS 6th
6,289 M.—353 F. AAA
(2 yr.)
8,134 M.—478 F. AA
7,695 M.—433 F. AAA
8,662 M.—495 F. AA
9,559 M.—513 F. AA
All on 2 milkings.
2 good daughters.

Choice Owl 15th was bred at the Experiment Station. He was a son of Choice Owl (Sire No. 4) and out of a daughter of Maplewood's Interested Owl (Sire No. 5), the proved sire. His dam had four Register of Merit records which averaged 466 pounds of fat, made on two milkings daily, the highest one being 592 pounds

of fat. The next three dams on the bottom of the pedigree had 515, 516, and 614 pounds of fat, respectively. This bull got a poor start, developed slowly, and seemed to lack vigor while growing. He eventually became a rather large active sire of just fair type.

Choice Owl 15th sired 21 male and 27 female calves in the herd. His daughters were not up to the standard indicated by his ancestors. Only 10 of his daughters completed first records and these averaged 6,475 pounds of milk and 326 pounds of fat on two milkings daily. They produced 1,273 pounds of milk and 67 pounds of fat less than their dams. They averaged 39 pounds of fat less than 11 daughters of Maplewood's Owl (Sire No. 7). Most of his daughters were not very satisfactory in type and production and he was discarded.

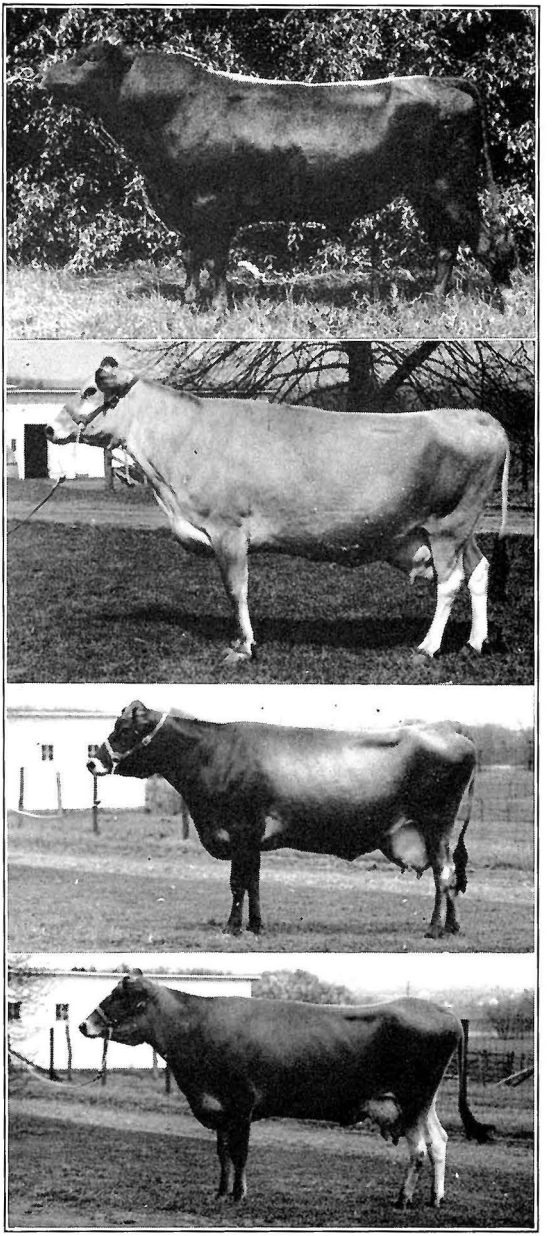


Fig. 10.—Choice Owl 15th and daughters.

Jersey Sire No. 9—Darling's Research Owl 355435

Born June 5, 1935

Sire

AGGIE'S CHOICE OWL 234785
S. and G. M. sire.
Tested Sire
17 daughters averaged
13,160 M.—687 F.

SPERMFIELD OWL'S PROGRESS 163331
S., G., and M. M. sire.
8 or more G. M. daughters.
30 or more S. M. daughters and sons.
Tested Sire
83 daughters averaged
12,459 M.—690 F.

OXFORD LAD'S PROGRESS 92916
Tested Sire
15 daughters averaged
10,587 M.—562 F.

SPERMFIELD OWL'S TEMISIA
15,147 M.—875 F.
4 G. M. daughters.
Tested Dam
12,419 M.—704 F.

OWL'S CHOICE MINEOLA 401832
9,614 M.—527 F.
Sr. 2 yr.
15,128 M.—648 F. G. M.
G. M. daughter and son.

SIBLEY'S CHOICE 83040
G. M. sire with 7 Gold Medal Progeny.
Tested Sire
23 daughters averaged
12,633 M.—633 F.

LULIE'S MAID of G. 2d.
No record.

Six of the seven sires in this pedigree were G. M. sires, and six of the seven dams averaged 14,090 pounds of milk and 729 pounds of fat.

SIBLEY'S CHOICE 83040
(See above)

GRACE DARLING'S CHOICE OWL 200111
S. and G. M. sire.
5 or more G. M. daughters.
Tested Sire
13 daughters averaged
11,946 M.—741 F.

TEMISIA'S OWL'S GRACE DARLING
11,528 M.—727 F.
14,762 M.—899 F.
15,535 M.—908 F.
Tested Dam with 1 son and 3 daughters
9,780 M.—569 F.

Dam

DARLING'S OWL'S DEBUTANTE 709398
9,803 M.—540 F.
11,934 M.—648 F.
S. and G. M.

SIBLEY'S CHOICE 83040
(See above)

FONTAINE'S NINETTE CHOICE 327340
13,701 M.—677 F.
2 S. and G. M. daughters

FONTAINE'S NINETTE
10,502 M.—485 F.
12,797 M.—618 F.
13,056 M.—605 F.
2 R. M. daughters

Darling's Research Owl was bought as a calf from Sibley Farms, of Spencer, Massachusetts at a cost of $150. He was a son of a Silver and Gold Medal sire, Aggie's Choice Owl, and of a Silver and Gold Medal cow. Both of his grandsires and three of his great-grandsires were Gold Medal sires. His paternal granddam was a Gold Medal cow and both granddams had medal offspring. Six of his seven nearest dams had Register of Merit records averaging 14,083 pounds of milk and 727 pounds of fat. They also had 15 Register of Merit sons and daughters. This shows good production and reproduction by his ancestors. It would seem that his daughters should have been excellent producers.

This bull sired 49 male and 46 female calves in the herd. His rate of services per conception was 1.73 with fertile cows. Nine of his first daughters, just coming into milk, were lost in an outbreak of Brucellosis in a group of heifers on pasture.

Fifteen later daughters which completed first records averaged 6,229 pounds of milk and 317 pounds of fat. This was 919 pounds of milk and 52 pounds of fat less than their dams produced. He appears in the Tested Sire list with 10 daughters averaging 9,288 pounds of milk and 490 pounds of fat. These were milked twice daily. His daughters were not uniform in type of body or udders.

Considering the records back of him, his transmitting ability was quite disappointing. He was sold for beef.

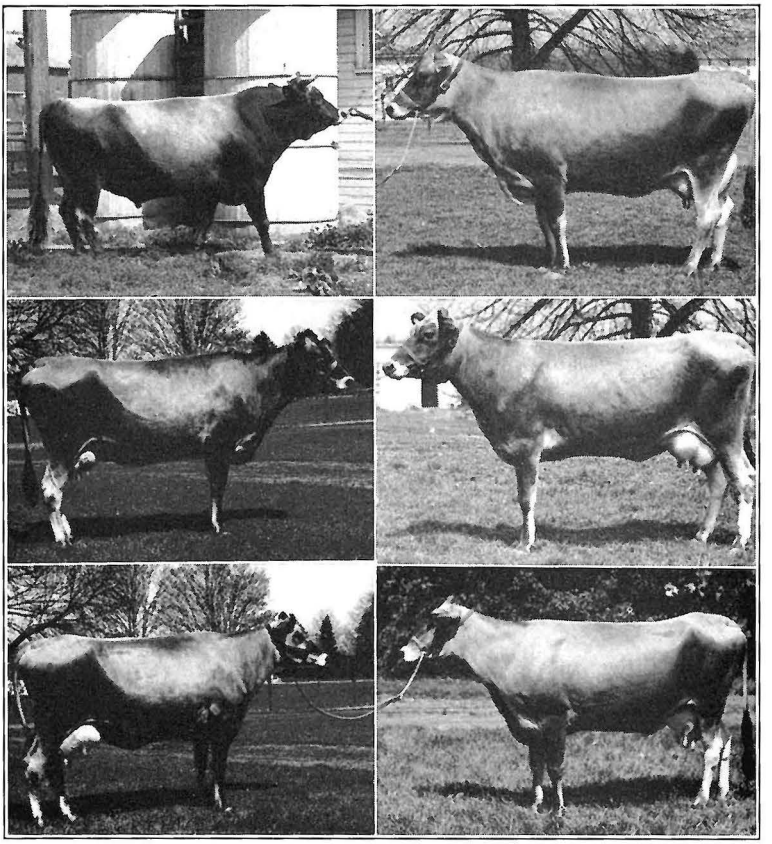


Fig. 11.—Darling's Research Owl and daughters.

Jersey Sire No. 10—Belmont Choice Owl 340514

Born January 18, 1931

Sire

OWL'S TEMESIA'S PROGRESS 314373

TEMISIA'S ROYAL OWL 199193
S. M., Tested Sire
20 daughters averaged
11,631 M.—672 F.
13 or more S. M. daughters.

SPERMFIELD OWL'S PROGRESS
Tested, S., G., and M. M. Sire
30 or more S. M.
8 or more G. M.
83 daughters averaged
12,459 M.—690 F.

TEMISIA'S ROYAL QUEEN
8,077 M.—438 F.
14,021 M.—738 F.
14,091 M.—726 F.
4 R. M. progeny.

META'S PROSPECT OWL 708184
5,889 M.—298 F. 150 Da.

OWL'S INTEREST PROGRESS
S. M. Sire
1 with
17,523 M.—955 F.

GLOANS META OWL 551685
12,393 M.—605 F.
14,198 M.—735 F.

Dam

PROGRESS' CHOICE OWL 634498
11,982 M.—612 F.
G. M.

OWL'S INTEREST PROGRESS 181504
S. M. Tested Sire
21 daughters averaged
10,736 M.—595 F.
1 with
17,523 M.—955 F.
M. M.

SPERMFIELD OWL'S PROGRESS
(See above)

OWL'S MILDRED B 414639
12,410 M.—692 F. S. M.
14,848 M.—794 F.
2 S. M. sons

CHOICE OWL'S RIOTER LUCY 582864
No test

ALMA KING'S CHOICE
6 R. M. daughters
1 Tested son

OWL'S RIOTER LUCY
6,489 M.—353 F.

Belmont Choice Owl was bred by W. H. O. Goist of Girard, Ohio, and was bought at a cost of $100 by the Belmont County Experiment Farm. He was later leased to the Ohio Experiment Station for temporary use. His sire was a young bull without tested daughters but both grandsires were Silver Medal sires. His dam had a Gold Medal record of 11,982 pounds of milk and 612 pounds of fat. She was a cow with good body type and had a large udder but the teats were large.

In the Station herd this bull sired 13 male and 21 female calves. His rate of services with fertile cows was 1.75. Seven of his older daughters were lost in an outbreak of Brucellosis in a group of heifers while on pasture. Six daughters completed first records which averaged 6,197 pounds of milk and 314 pounds of fat in 331 days. This was 2,197 pounds of milk and 101.2 pounds of fat less than produced by their dams at the same age. This is a large difference but the dams were a selected lot averaging 415 pounds of fat as 2-year-olds on two milkings daily which would equal more than 500 pounds at maturity.

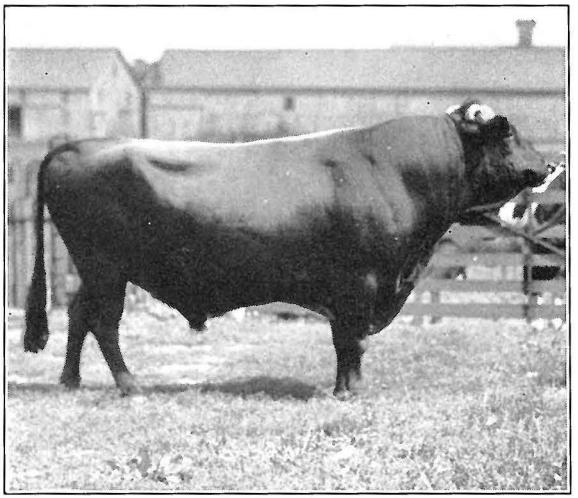


Fig. 12.—Belmont Choice Owl. Pictures of daughters are not available.

His daughters were rather coarse and rough. They had large bodies indicating capacity to consume large amounts of feeds. Their udders were large, rather meaty and pendent, and the teats were large. Their general appearance indicated larger production. No pictures of the daughters are available.

Some heifers infected with brucellosis had been bred to him and he reacted to the blood test. He was disposed of and his influence has been almost removed from the herd.

Jersey Sire No. 11—Rayowl 387116

Born October 22, 1937

Sire

PEEK-A-BOO PROGRESS OWL 361552
20 daughters averaged
8,985 M.—460 F.
Herd Improvement Registry

THE OWL'S BONNY PROGRESS 298411
S. M., G. M., and Tested Sire
43 daughters averaged
12,614 M.—693 F.
43 classified 82.5 per cent.
4 G. M. daughters.

SPERMFIELD OWL'S PROGRESS
S. M., G. M., M. M., Tested Sire
83 daughters averaged
12,459 M.—690 F.
76 medals

BONNIE OF SIBLEY FARMS
13,900 M.—703 F., G. M.
Large, handsome, beautiful udder.
"3 splendid sons".

OWL INTEREST PEEK-A-BOO 615339
9,033 M.—418 F.
11,633 M.—539 F. S. M.
12,616 M.—613 F. G. M.
Tested Dam with 1 son.
2 daughters rated
10,500 M.—576 F.

SPERMFIELD OWL'S PROGRESS
(See above)

S. P. GOLDEN PRINCES ROSALIA B.
10,685 M.—629 F., G. M.
Tested Dam
3 daughters and 1 son rated
12,086 M.—644 F.

Dam

INTERESTED LADY RAYO 2d 768971
9,899 M.—516 F., C. T. A.
619 fat in 305 days.
55 pounds of milk in 1 day.
3 daughters averaged
10,407 M.—570 F.
Daughter
11,576 M.—614 F., C. T. A.

OWL INTEREST PROGRESS
S. M., Tested Sire
21 daughters averaged
10,736 M.—593 F.
1 with
17,523 M.—955 F.

SPERMFIELD OWL'S PROGRESS
(See above)

OWL'S MILDRED B 414639
12,410 M.—692 F., S. M.
14,848 M.—794 F.
2 Tested sons rated
593 and 794 F.

INTEREST LADY RAYO 470993
6,647 M.—355 F.
11,480 M.—561 F.

SANDY FLATS MODEL PRINCE
3 Yearlings: 355, 386, and 423 F.
Full brother to Sire No. 5.

LADY RAYO 343774
10,261 M.—527 F.

Rayowl was bought as a calf from W. D. Kaylor of Westerville, Ohio. He was contracted for before he was born and cost $50, plus transportation. He was a son of Peek-a-Boo Progress Owl, a Tested Sire with 20 daughters averaging 8,985 pounds of milk and 460 pounds of fat made in Herd Improvement Registry as 2-year-olds. He was a grandson of The Owl's Bonny Progress, a Silver and Gold Medal sire with one Medal of Merit daughter. A Medal of Merit sire appears three times as his great-grandsire.

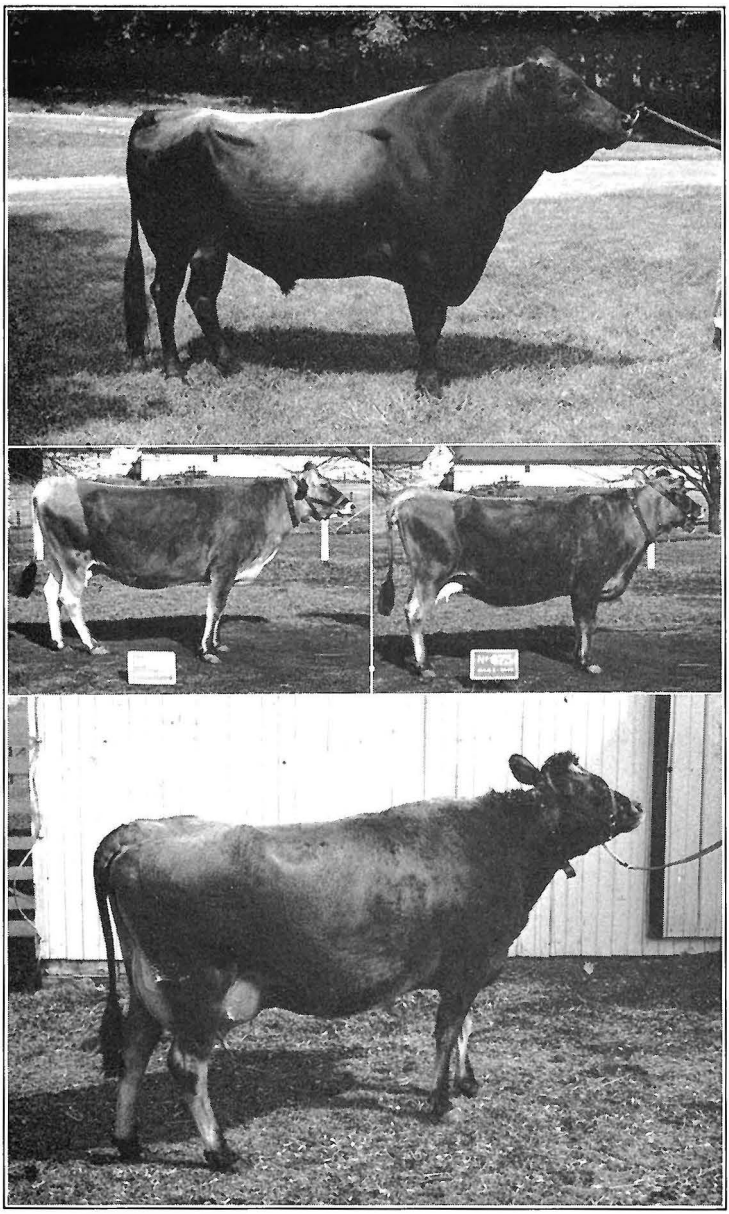


Fig. 13.—Rayowl and three of his daughters.

Rayowl's dam has a Cow-Test Association record of 516 pounds of fat and she has a daughter with a Cow Test Association record of 614 pounds of fat. His seven nearest dams have Cow Test Association or Register of Merit records of from 516 to 794 pounds of fat.

He did not develop into a bull of very good type but his daughters were better than their dams in this respect. Largely because of a surplus, a number of his daughters were disposed of as calves. Six of them completed records which averaged 6,254 pounds of milk and 330.2 pounds of fat. This was 23 pounds more milk and 12.3 pounds less fat than their dams. Their average age at freshening was 2 years, 5 months, and 22 days. This is good production for 2-year-olds.

He was sold for beef.

Jersey Sire No. 12—Ohio Design 403651

Ohio Design was bred by J. W. McHenry of Wellington, Ohio, and cost $50 as a small calf. He was the first outcross used since Choice Owl (Sire No. 4) was obtained. In the meantime, only bulls of the Owl Interest line were used.

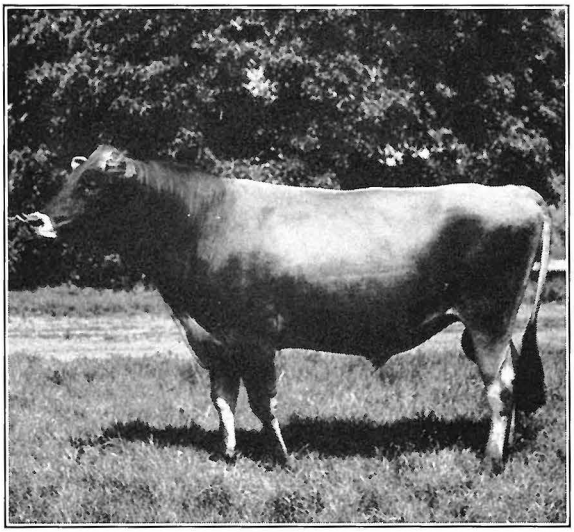


Fig. 14.—Ohio Design. See figure 15 for daughters of this bull.

Born December 30, 1938

Sire

DESIGN MAY KING 373646
Daughters were not tested. They were sold and scattered.

DESIGN'S BRAMPTON NOBLE 218955
S. M. Tested Sire
37 daughters averaged
11,192 M.—601 F.

DESIGN FERN OXFORD
S. M., G. M., and Tested Sire
51 daughters averaged
10,997 M.—622 F.
42 classified 86.4 per cent.
4 Superior sons.
Daughters prize winners.

BOWLINA'S PET 742278
Great show cow.
Tested Dam with 1 son and 2 daughters rated
10,487 M.—590 F.

SULTAN'S DESIGN MAID 998505
No record

LA SENTE SPOTTED SULTAN
Tested Sire
16 daughters averaged
9,747 M.—513 F.
His sire had 39 tested.

DESIGN'S ALIGATOR MAID
6,727 M.—390 F.
221 days
Classified G. P.

Dam

COCOTTE RALEIGH GRACE 1027084
Records made in HIR
9,967 M.—605 F.
305 days
8,548 M.—463 F.
307 days
9,557 M.—511 F.
310 days
Other records:
8,226 M.—427 F.
286 days
10,348 M.—555 F.
331 days
A daughter with 5 good records.

COCOTTE RALEIGH OF BEECHFIELD
21 daughters in H. I. R. averaged
7,714 M.—441 F.

COCOTTE'S RALEIGH OF HILLWOOD
1 R. M. daughter and 1 R. M. son.

BEECHFIELD FAIRY GIRL 431077
8,218 M.—434 F. Sr. Yr.
Tenn. class Champion.

COCOTTE RALEIGH OF BEECHFIELD
(See above)

BEECHFIELD GRACE MAID 743427
5,329 M.—307 F.
9 Mo. DHIA
3 daughters with 605, 506, and 355 Fat—DHIA.

VIVA INTEREST CHOICE ALICE
Dam
12,229 M.—538 F.
Both grandsires were medal sires.

Design's sire was a young unproved sire but his grandsire was a Silver Medal sire with 37 daughters rated at 11,192 pounds of milk and 601 pounds of fat; and 30 of his daughters when classified averaged 83.6 per cent. Design's dam had three Herd Improvement Association records of 605, 463, and 511 pounds of fat; also

two private records of 427 and 553 pounds of fat. His maternal sister had five records averaging 440 pounds of fat made on two milkings daily. Design was backed by better type than the preceding bulls excepting Dean Hill Owl (Sire No. 6). He sired 10 sons and 15 daughters. His rate of services per conception was 2.22.

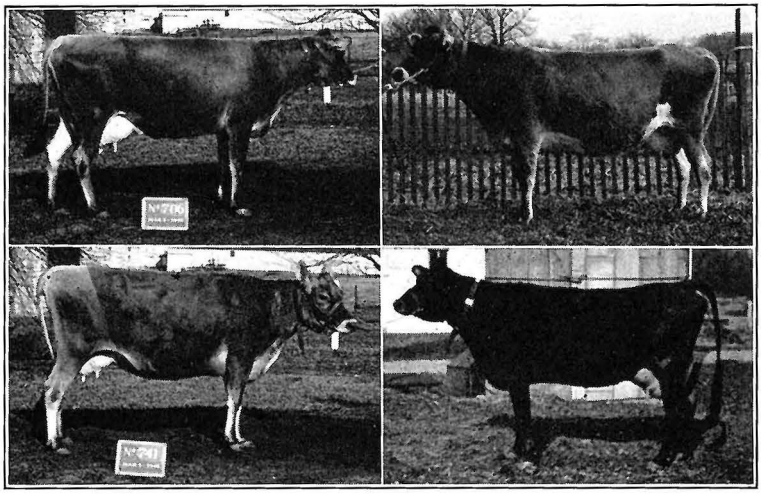


Fig. 15.—Daughters of Ohio Design

Design's first two daughters were unsatisfactory in both type and production; hence, when he became unsafe to handle he was sent to the butcher. His next five daughters were good milkers. Seven junior 2-year-olds, including one of the first two, made records averaging 6,315 pounds of milk and 336 pounds of fat. Six daughters, the records of whose dams are available, produced 6,339 pounds of milk and 337 pounds of fat which is 454 pounds of milk and 40 pounds of fat more than their dams at the same age.

The body type of his daughters was fair but the udders of some were badly unbalanced.

Jersey Sire No. 13—Lavender Sybil Lad Gamboge 426359

Born September 19, 1940

Sire

SYBIL'S SUCCESSOR'S PROGRESS 355567
6 daughters classified; 4 good plus, 1 very good, 1 good.
3 R. M. daughters
6,245 M.—392 F.
5,014 M.—314 F.
8,879 M.—558 F.
2 H. I. R. daughters
9,072 M.—565 F.
8,030 M.—427 F.

SYBIL'S SUCCESSOR 258883
S., G., and M. M. sire.
Tested Sire
113 daughters averaged
10,397 M.—603 F.
21 classified averaged 86.3 per cent.
A great show bull on the Island and in America, individually and with get.

SYBIL'S GAMBOGE 3d 184896
Tested Sire
17 daughters averaged
11,292 M.—606 F.

RONALD'S FONTAINE DUCHESS
10,017 M.—684 F.
A prize winner.

SYBIL'S LAUREL 705626
16,368 M.—877 F.
14,323 M.—799 F.
M. M.
15,501 M.—880 F.
(12 yr.)

SYBIL'S GAMBOGE 174663
S., G., and Merit Medals
First with progeny over Island, 1919.

ROSIL HAMLET LAUREL
G. and M. Medal daughters.
1 daughter sold for $1,800.

SYBIL'S GAMBOGE 174663
(See above)

SYBIL'S SUCCESSOR 258883
(See above)

RONALD'S FONTAINE DUCHESS
10,017 M.—684 F.
A show cow.

Dam

LADY LAVENDER 1033323
Classified "Excellent"
9,128 M.—491 F.
9,289 M.—505 F.

LAVENDER LADY 737333
3 times Nat. Gr. Champion.
4 prize winning daughters.
Tested Dam
3 daughters averaged
12,357 M.—641 F.

RAPHAIL 5840 C.
Son of Sybil's Gamboge.
Sire of 4 or more prize winners.

PROTENES PRUDENCE P. 28261
Daughter of prize winner.

This calf was bred by H. W. Bonnell of Youngstown, Ohio. He was purchased for $200. He is a double grandson of Sybil's Successor, a Silver, Gold, and Merit Medal sire, and also a Tested Sire with 113 daughters which averaged 10,879 pounds of milk and 603 pounds of fat. He was a great show bull on the Island and also in this country, winning championships alone and with his get. Twenty-one daughters which were classified averaged 86.3 per cent.

The sire of the calf had 6 daughters classified as Good to Good Plus. He does not have many Register of Merit daughters and their records are moderate. His dam had three wonderful records (see pedigree) and was a Medal of Merit cow.

The dam of this calf had two records (491 and 505 pounds of fat, AAA), and was classified Excellent. She was out of Lavender Lady, a great show cow who won three Grand Championships at the National Dairy Show and was a Tested Dam with three daughters averaging 12,357 pounds of milk and 641 pounds of fat. Her dam also had four prize winning daughters.

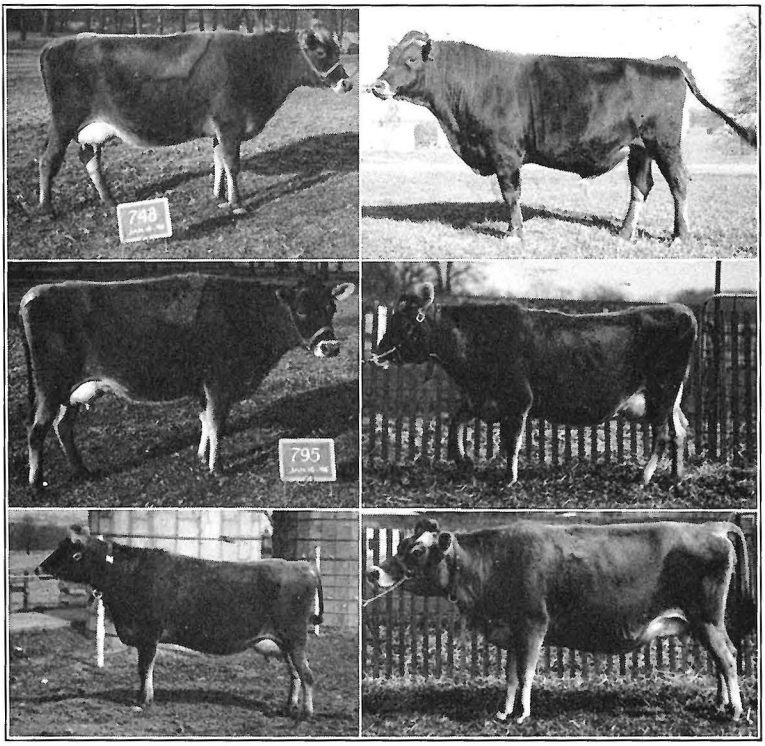


Fig. 16.—Lavender Sybil Lad Gamboge shown with five daughters not yet matured.

This young bull was backed by much better type than any bull previously used in the Station herd. His daughters are uniform and better in type than those of any other sire used with the possible exception of Sire No. 6. Their bodies are deep, they have well shaped udders, the teats are of a nice size and well placed, they are easy milkers and have good dispositions. They are shown as 2-year-olds in figure 16. Only seven daughters have completed first records at the present time, their average being 4,955 pounds of milk and 300 pounds of fat, in 316 days. In six daughter-dam

pairs, his daughters produced 1,343 pounds of milk and 45 pounds of fat less than their dams. Some of these were on pasture experiments and might have done better otherwise. Some are starting well on their second lactations. Lavender Sybil Lad Gamboge is a short, deep-bodied, low-down bull.

Summary of Jersey Sires

A summary of the production of the daughters of these Jersey sires is presented in table 1.

TABLE 1.—Summary of the production of the daughters of Jersey Sires

Sire number*	Number of daughters	Production of daughters			Higher or lower than the daughters of preceding sire			Higher or lower than their dams		
		Milk	Fat	Days	Milk	Fat	Days	Pairs	Milk	Fat
		Lb.	*Lb.*		*Lb.*	*Lb.*		*No.*	*Lb.*	*Lb.*
1.....	10	3,998	223.0	345	.....	.....	.....	10	−1427.0	− 81.0
2	24	5,100	286.3	353	+1,102	+45.3	+ 8	24	+ 360.2	+ 5.5
3	9	5,615	295.2	357	+ 514	+26.8	+ 5	9	+ 305.0	+ 20.1
4	20	6,989	374.1	345	+1,374	+78.9	−12	17	+ 615.9	+ 40.1
6	21	7,073	353.8	351	+ 84	−20.3	+ 6	21	− 182.0	− 28.5
7	12	7,347	365.0	341	+ 274	+11.2	−10	11	− 455.0	− 37.0
8	10	6,475	326.0	343	− 872	−39.0	+ 2	10	−1273.0	− 67.2
9	15	6,229	317.0	323	− 246	− 9.0	−20	13	− 755.0	− 40.2
10	6	6,197	314.0	313	− 32	− 3.0	−10	6	−2197.0	−101.2
11.....	6	6,253	330.2	318	+ 56	+16.2	+ 5	6	+ 22.8	− 12.3
12.....	6	6,339	337.0	315	+ 86	+ 6.8	+ 3	6	+ 454.0	+ 40.3
13	7	4,955	300.0	316	−1,384	−37.0	+ 1	6	−1343.0	− 45.3

*No. 5 was omitted because of insufficient daughters.

Figure 17 shows the relative production when the milk has been calculated to a 4 per cent fat basis by the Gaines formula (pounds of milk × .4 plus 15 × pounds of fat).

None of these records are very high as Register of Merit records go, but any heifer which produces above 300 pounds of fat as a junior 2-year-old when milked twice daily and on regular herd feed and care is not a cull heifer. This is about equal to a 400 pound record at maturity based on the old American Jersey Cattle Club factor.

Previous to Sire No. 10, there was little culling based on production before the daughters had completed one record. Some heifers did go out but mostly for other reasons. Many cows in these groups of daughters would have made very creditable records if they had been better-fitted and milked and fed for that purpose.

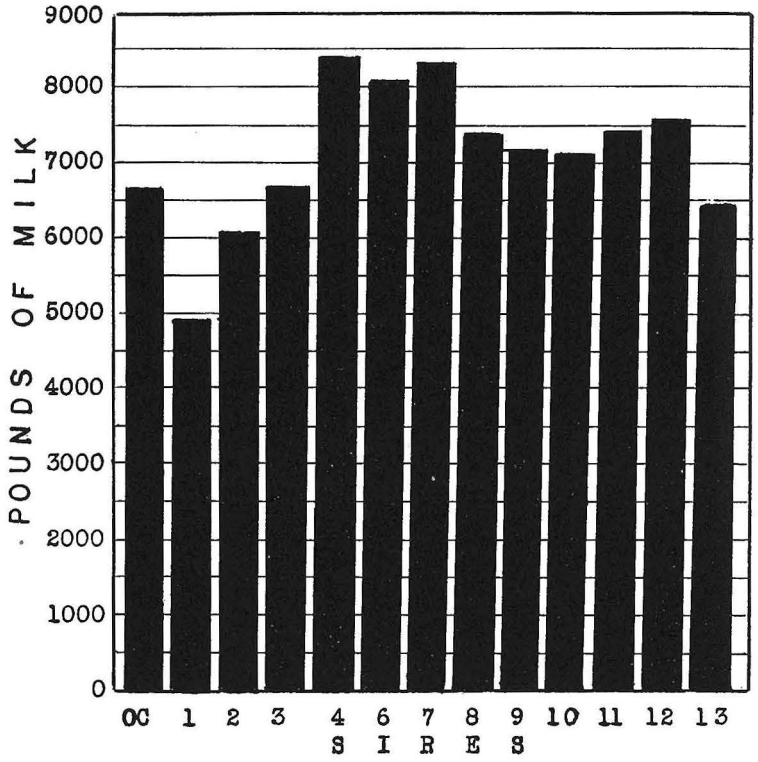


Fig. 17.—Relative production of milk (calculated to a 4 per cent basis) by daughters of the various Jersey sires. OC represents original Jersey cows.

HOLSTEIN SIRES

Holstein-Friesian Sires

Records of breeding operations in the Holstein herd are available for about 35 years.

Milk and fat records used in this report are practically all 2-year-old records made on two milkings daily with regular feeding and care. They are private Experiment Station records and are not corrected for age or length of lactation; however, no record exceeds 365 days.

The records shown in the pedigrees are, in most cases, given as reported by the breed association. They were made while the cows were milked two, three, or four times daily. None of the Station records shown in the pedigrees were made while milking more than three times daily.

The sires were not used in the exact order given here, some being used concurrently.

In the Holstein-Friesian breed, a producing son or daughter is one which has daughters with Advanced Register Official or Advanced Register Semi-Official records.

Holstein Sire No. 1—Tina Clay De Kol Lad 42450

Born November 5, 1905

Sire

SARCASTIC LAD 23971
Grand Champion at the World's Fair at St. Louis in 1904.
35 A. R. O. daughters
13 A. R. S. O. daughters
42 producing sons
29 producing daughters

MAURICE BONHEUR 22394
3 A. R. O. daughters

MAURICE CLOTHILDE

ROSA BONHEUR 5th

BELLE SARCASTIC 23039
23,189 milk—721 fat
One of the first cows to make such a record.
Mich. Agr. College

SARCASTIC

BELVISIA 2d

Dam

TINA CLAY DE KOL 81017
430 milk—17.0 fat—7 Da.
An excellent cow.

MANOR DE KOL PLUM
3 A. R. O. daughters

MANOR DE KOL

PLUM 4th

TINA CLAY PIETERTJE BELLE
A fine cow.

SEVIA KEYES PIETERTJE

TINA CLAY

Tina Clay De Kol Lad was bred at the University of Illinois and cost $100 as a calf. He was the first Holstein sire for which complete breeding records are available. He was the son of Sarcastic Lad 23971 who was Grand Champion at the World's Fair at St. Louis in 1904 and whose dam was Belle Sarcastic, the first Holstein cow to produce more than 20,000 pounds of milk and 720 pounds of fat in one year. Lad's dam was Tina Clay De Kol, a fine cow. She in turn was out of a fine cow. He developed into a rather large bull of fairly good type. After being used at the Experiment Station for a few years, he was transferred to the herd at the Boys Industrial School at Lancaster, Ohio. He was always a healthy, vigorous bull.

This bull was used on a small herd of cows and consequently he sired only nine daughters who completed records. Three daughters were lost by lead poisoning before they became of breeding age. The nine daughters averaged 7,840 pounds of milk and 253 pounds of fat in 356 days. This was 1,095 pounds of milk and 25.9 pounds of fat more than their dams produced.

His daughters were an improvement in type over their dams.

Three daughters when put on Advanced Register, Semi-Official Tests, when mature, produced an average of 18,975 pounds of milk and 612 of fat. They were fed and milked three times daily. One of these (No. 57) produced as a 2-year-old 8,308 pounds of milk and 288 pounds of fat, milked twice daily. When mature and milked and fed three times daily she produced 21,171 pounds of milk and 710 pounds of fat. During her life, milked twice daily, except as is noted above, she produced 133,462 pounds of milk and 4,616 pounds of fat. She became the great-grandmother of much of the later herd. Two of her daughters and two granddaughters produced from 113,000 to 140,000 pounds of milk.

Other daughters of this sire made good records when mature. He was a satisfactory sire for the herd in which he was used.

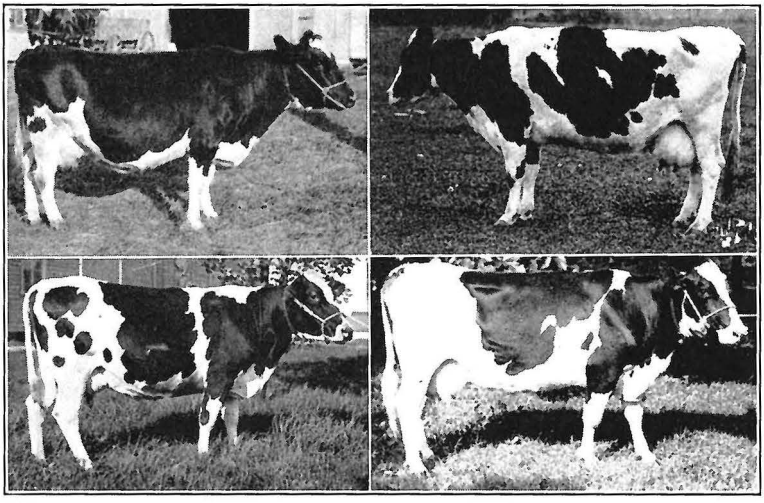


Fig. 18.—Tina Clay De Kol (upper right) and four of his daughters.

Holstein Sire No. 2—Marcella Hengerveld De Kol 70519

Born February 4, 1910

Sire

HENGERVELD DE KOL 5th 54721
35 A. R. O. daughters, 4 above 80 lb. F., 30 days.
12 producing sons.
13 producing daughters.
Daughters (30 days)
2,486 M.—97.6 F.
2,298 M.—93.6 F.
2,735 M.—91.2 F.
2,276 M.—84.8 F.
23 with 16 to 24.8 pounds of fat in 7 days.

HENGERVELD DE KOL 23102
116 A. R. O. daughters.
85 producing sons.
Some daughters
21,834 M.—860 F.
19,337 M.—793 F.
24,829 M.—740 F.
17,963 M.—593 F.
18,534 M.—613 F.

BELLE NETHERLAND JOHANNA 62304
22,811 M.—882 F.
2 A. R. O. daughters
2 producing sons.

DE KOL 2d's BUTTER BOY

MAGADORA 29237
A fine cow.

JOHANNA RUE 3d's LAD
3 daughters
882 F.
1176 F.
925 F.

BELLE NETHERLAND CLOTHILDE
477 M., 18.9 F., 7 days
4 A. R. O. daughters.

Dam

MARCELLA LOTE 66934
20,410 M.—680 F.
1 producing son.
1 producing daughter.

AGATHA NETHERLAND PIETERTJE 26980
11 A. R. O. daughters
15 producing sons.

SYBELE'S PIETERTJE CHIEF
2 A. R. O. daughters.
4 A. R. sons.

AGATHA OF LAWNSIDE 2d's NETHERLAND

LOTE GIRL 43030

ROMAG 20912

ALFLORETTA 18830

This bull was a son of Hengerveld De Kol 5th, who had 25 Advanced Register Official daughters. The grandsire, Hengerveld De Kol, had 116 Advanced Register Official daughters and was considered one of the great Holstein sires of his time. The dam of Marcella Hengerveld De Kol, Marcella Lote, had a record of 20,410 pounds of milk and 680 pounds of fat in 305 days. This calf cost $250 and proved to be the best Holstein sire the Station owned up to 1943. He sired 31 male and 30 female calves. Twenty daughters produced in their first records an average of 9,273 pounds of milk and 320.6 pounds of fat in 352 days being milked two times daily. This was an average of 1,462 pounds of milk and 62.6 pounds of fat more than their dams produced in 338 days. The daughters were a marked improvement over their dams in type as

well as in production. Sixteen daughters, out of daughters of Sire No. 1, averaged 1,897 pounds of milk and 65 pounds of fat more than their dams.

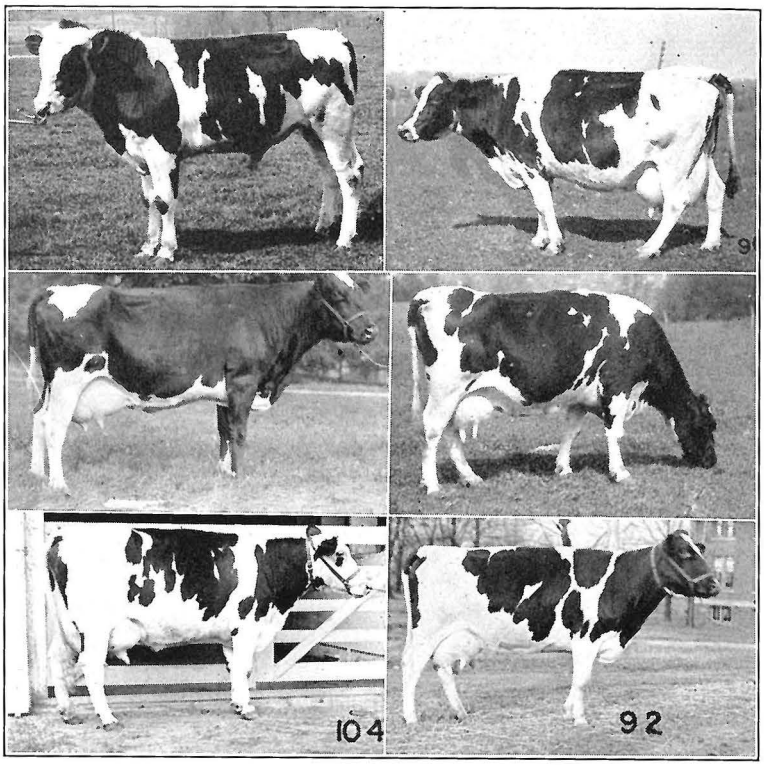


Fig. 19.—Marcella Hengerveld De Kol and daughters.

Ten daughters ranging in age from 3 to 11 years produced in Advanced Register Semi-Official tests an average of 16,311 pounds of milk and 576 pounds of fat. They were milked two and three times daily while making these records. Two produced above 20,000 pounds of milk and 750 pounds of fat. Four (Nos. 92, 107, 121, and 90) made life records of 140,503, 122,379, 113,152, 143,497 pounds of milk and 4,793, 4,340, 4,246, and 4,777 pounds of fat, respectively. These life records were made on two milkings daily except one lactation each. This represents excellent production and long life, the most important factors in profitable dairying.

Marcella Hengerveld De Kol was so satisfactory that his blood was carried along through a son, a grandson, and a great grandson as well as through the females until 1941. He was confined too long in a box stall on soft bedding and as a result his hoofs grew long, his feet became congested, rheumatism developed, and he became useless. He was potent as long as he was able to serve.

Holstein Sire No. 3—King Pontiac De Kol Spring Brook 150875

Born March 2, 1914

Sire

KING PONTIAC DE KOL 49088

Daughters
15,086 M.—475 F.
21,306 M.—657 F.
3 above 20 F., 7days

KING OF THE PONTIACS 39037
283 A. R. O. daughters.
56 A. R. S. O. daughters.
229 producing sons.
A famous sire.

PONTIAC KORNDYKE 25983
152 A. R. O. daughters.
129 producing sons.
5 daughters above 700 pounds of fat.

PONTIAC LUND HENGERVELD
558 M.—22.7 F. in 7 days.

DE KOL PRINCESS BELLE 52660
3 daughters with 22.6, 22.7, and 22.5 F. in 7 days.

DE KOL 2d's BUTTER BOY 3d.
115 A. R. O. daughters.
78 producing sons.
47 producing daughters.

WOODLAND PRINCESS BELLE COLANTHUS 43917
5 A. R. O. daughters.

SIR KORNDYKE DE KOL WAYNE 42824
12 A. R. S. O. daughters.

BELLE KORNDYKE BERYL WAYNE 52386
46 A. R. O. daughters
10 producing sons.
21 producing daughters.

DE KOL WITKOP WAYNE
484 M.—22.8 F. in 7 days.
1 A. R. O. daughter.

Dam

SPRING BROOK MARY 120843

506 M.—16.8 F.
A large fine cow with a fine udder.

SPRING BROOK PEARL 196907
530 M.—21.6 F. in 7 days.

AAGGIE CORNUCOPIA 3d's LILITH
20 A. R. O. daughters.
7 producing sons.
6 producing daughters.

HAMILTON BEAUTY DE KOL PEARL 78218
436 M.—13.6 F. in 7 days.

This calf was a grandson of the great King of the Pontiacs and out of Spring Brook Mary, with a 7-day record of 16.8 pounds of fat. She was a large cow of good type and had a large, well-balanced udder. She looked capable of producing a large record.

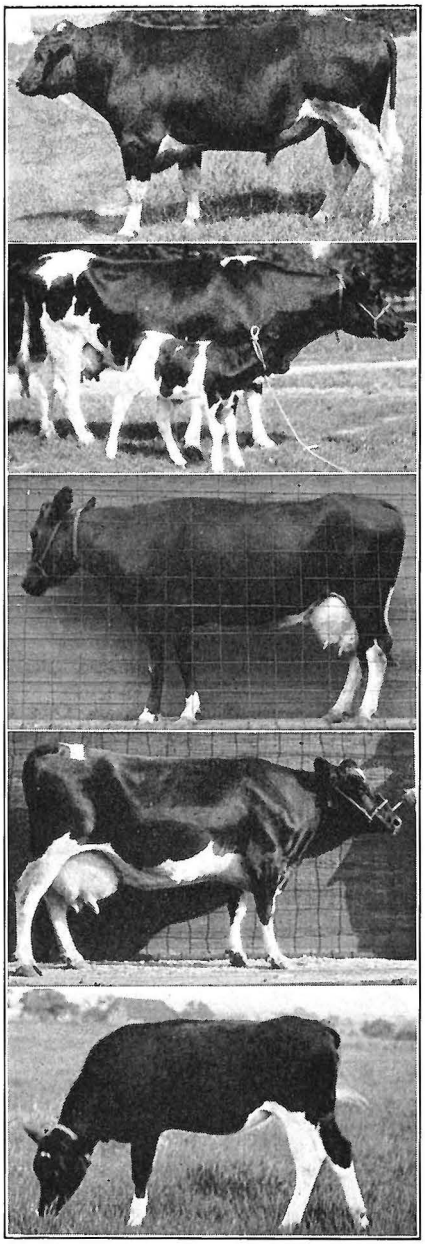


Fig. 20.—King Pontiac De Kol Spring Brook and daughters.

The calf was bred by S. W. Jennings, Olmstead Falls, Ohio, and cost $100. He did not develop in a satisfactory manner. His type was poor, he was generally rough and had a very sloping rump. He was dark in color and transmitted too much of this color. Only a few of his daughters were kept and his blood ultimately had little influence on the herd.

King, as he was called, sired 19 sons and 25 daughters. Six of his daughters completed first records which averaged 7,853 pounds of milk and 284.4 pounds of fat in 347 days. This was 1,200 pounds of milk and 19.2 pounds of fat less than their dams; also 1,487 pounds of milk and 38.4 pounds of fat less than the daughters of Sire No. 2. One daughter, fed and milked three times daily, produced 14,902 pounds of milk and 535 pounds of fat. He was sold because he proved unsatisfactory. The record of this bull is further proof that it is very difficult to determine the transmitting ability of a bull by his direct female ancestry.

Money, feed, and breeding time were wasted with this bull. He illustrates the hazard all dairymen take when they can not secure a healthy, usable proved sire. Figure 20 shows him at his best.

Holstein Sire No. 4—Meadow Holm Jennie King 281701

Born May 5, 1917

Sire

MAPLECREST PONTIAC HARTOG 62188
39 A. R. O. daughters.
14 from 18,744 M. and 623 F. to 22,843 M. and 779 F.
28 A. R. S. O. daughters.
25 producing sons.
20 producing daughters.

PONTIAC AAGGIE KORNDYKE 32291
66 A. R. O. daughters.
30 A. R. S. O. daughters.
34 producing daughters.
35 producing sons.
8 above 20,000 M. and 758 F.

PONTIAC KORNDYKE
132 A. R. O. daughters.
129 producing sons.
100 producing daughters.
4 above
22,827 M.—812 F.

PONTIAC AAGGIE
16 F. in 7 days.
2 A. R. O. daughters.

CLARION VELTHIUS
5 A. R. O. daughters.
6 producing sons.

BURTON HIGHLAWN 2d's HARTOG 72231
98 F. in 30 days.
5 A. R. O. daughters.
3 producing sons.

BURTON HIGHLAWN 2d
446 M.—16.4 F. in 7 da.
5 A. R. O. daughters.
4 producing sons, 5 producing daughters.

PAUL DE KOL 3d
13 A. R. O. daughters.
11 producing sons.
15 producing daughters.

AAGGIE 3d's WAYNE'S PAUL DE KOL 27863
19 A. R. O. daughters.
9 with 20,498 to 27,763 M. and 675 to 1,029 F.
31 producing daughters.
1 producing son.

AAGGIE 3d's WAYNE
497 M.—16.4 F.
3 A. R. O. daughters.
3 producing sons.

Dam

JENNIE DE KOL VEEMEN WAYNE 118532
20,876 M.—802 F. in 305 days.
2 A. R. O. daughters.
1 producing son.

MADAM FEDORA 2d's PAUL DE KOL
2 A. R. O. daughters.
3 producing daughters.

JENNIE DE KOL VEEMEN 94781
9.44 F. in 7 days.

LADY CLOTHILDE VEEMEN
387 M.—11.3 F.
2 A. R. O. daughters.

After the failure of Sire No. 3, an attempt was made to get a real sire backed by high production even at high cost. Meadow Holm Jennie King was bred by Peter Small, Chesterland, Ohio, and was secured at a cost of $1000. He had 14 half sisters with records from 17,500 to 22,843 pounds of milk in a year. Seven of these produced above 20,000 pounds. His sire also had 25 producing sons.

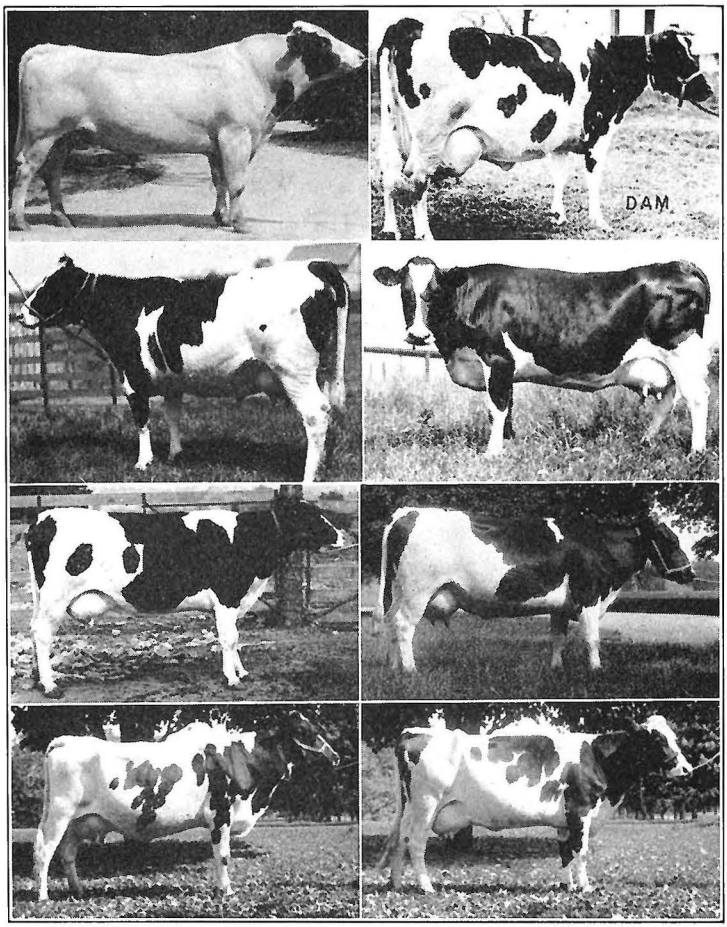


Fig. 21.—Meadow Holm Jennie King, his dam and six daughters.

His dam had a record of 20,870 pounds of milk and 804 pounds of fat in 305 days. She had four paternal half-sisters with 20,498 to 27,726 pounds of milk in a year. The grandsires had eight and five daughters which produced from 20,282 to 27,672 pounds of milk. Records above 20,000 pounds appear 28 times in three generations of his pedigree. The above records were made mostly by milking four times daily.

This bull was secured with the high hope that he would transmit good production and make a real contribution to the herd. His cost was about four times that of any other Holstein sire secured by the Station. However, prices were very high at that time because of World War 1. He was born in May 1917 and was kept until June 1927. He developed well and made a large bull of fair type. He was inclined to be a little slender in body and carried more flesh than desired. His daughters were coarse boned, had thick hides, and carried surplus flesh. Their udders were comparatively small but reasonably good in shape and teat placement. He sired 59 males and 43 females.

Twelve daughters in their first records averaged 8,260 pounds of milk and 291.9 pounds of fat in 353 days. This was 395 pounds of milk and 0.47 pounds of fat less than their dams. He had 9 other daughters which produced first records but they were on restricted rations and, therefore their records are not used in this report. However, their fat production averaged 63 pounds less than that of their dams. Four of his daughters on Advanced Register Semi-Official tests at three to five years of age produced an average of 13,733 pounds of milk and 513 pounds of fat. Two of these were milked three times daily. His daughters were just fair producers. Considering the great records among his ancestors he was a disappointing sire. It will be noted that the weak place in his pedigree was the maternal granddam and great-granddam whose records were small.

He had, at times, a slipping or locking of the stifle joint and this defect appeared in some of his offspring. He became sterile due to an infection and was sold for beef.

Holstein Sire No. 5—Marcella Hengerveld De Kol 6th 194887

Born June 14, 1916

Sire

MARCELLA HENGERVELD DE KOL 170519
20 daughters in first records, 2 milkings, produced 9,273 pounds milk and 320.6 pounds fat—1,462 pounds of milk and 62.6 pounds of fat more than their dams.
Life records of 4 daughters:
140,503 M.—4,793 F.
143,497 M.—4,777 F.
122,379 M.—4,340 F.
113,153 M.—4,260 F.

HENGERVELD DE KOL 5th 54721
35 A. R. O. daughters.
12 producing sons.
13 producing daughters.
Daughters (30 days)
2,486 M.—97.6 F.
2,298 M.—93.6 F.
2,735 M.—91.2 F.
2,276 M.—84.8 F.
23 with 16 to 24.8 F. in 7 days.

HENGERVELD DE KOL 23102
116 A. R. O. daughters.
85 producing sons.
Daughters
21,834 M.—860 F.
19,337 M.—793 F.
24,820 M.—740 F.
18,534 M.—613 F.

BELLE NETHERLAND JOHANNA 62304
22,811 M.—882 F.
2 A. R. O. daughters
2 producing sons

AGATHA NETHERLAND PIETERTJE 62980
11 A. R. O. daughters.
15 producing sons.

LOTE GIRL 43030
Not tested.

MARCELLA LOTE 69934
20,410 M.—680 F.
1 producing son.
1 producing daughter.

SARCASTIC LAD
Gr. Ch. at St. Louis, 1904.
35 A. R. O. daughters.
42 producing sons.

TINA CLAY DE KOL LAD 42450
Daughters
21,177 M.—710 F.
17,492 M.—592 F.
18,258 M.—533 F.
1 life record
133,463 M.—4,616 F.

TINA CLAY DE KOL
16.8 F. in 7 days.
Capable of a high record.

Dam

GRACE DARLING OF WOOSTER 242861
17,492 M.—592 F.
Daughters
15,971 M.—597 F.
17,135 M.—641 F.
on 2 milkings.

GRACE DAW 2d 242860
21,177 M.—710 F.
Daughters life records
133,463 M.—4,616 F.
140,503 M.—4,793 F.
122,379 M.—4,340 F.

TINA CLAY DE KOL LAD 42450
(See above)

GRACE DAW 64996
Not tested.

A daughter of Sire No. 1 was mated with her sire and produced an inbred daughter. This inbred daughter was mated with Sire No. 2 and produced Marcella Hengerveld De Kol 6th. He was kept as a herd sire to perpetuate the blood of his sire, Marcella Hengerveld De Kol, who gave such good results. The dam of this calf produced 17,492 pounds of milk and 592 pounds of fat. Her dam produced 21,177 pounds of milk and 710 pounds of fat, and her life record was 133,463 pounds of milk and 4,616 pounds of fat. His two full sisters produced 140,503 and 122,379 pounds of milk during their lives. He was used concurrently with, and on some daughters of, Sire No. 4.

As a calf, this bull was always very vigorous, "Always ready for his feed." He developed into a bull of fair type but hardly equal to his sire or maternal grandsire in conformation. He was always active in service until an infection rendered him sterile at 12 years of age. Other bulls in the herd were attacked in the same way at the same time. The cause of the infection was not determined. He was rather difficult to handle being stubborn rather than ugly. He sired 29 sons and 48 daughters.

Thirty of his daughters completed one year of production. The average of 30 records, made in regular herd work, was 8,390 pounds of milk and 315 pounds of fat in 352 days. This was 34

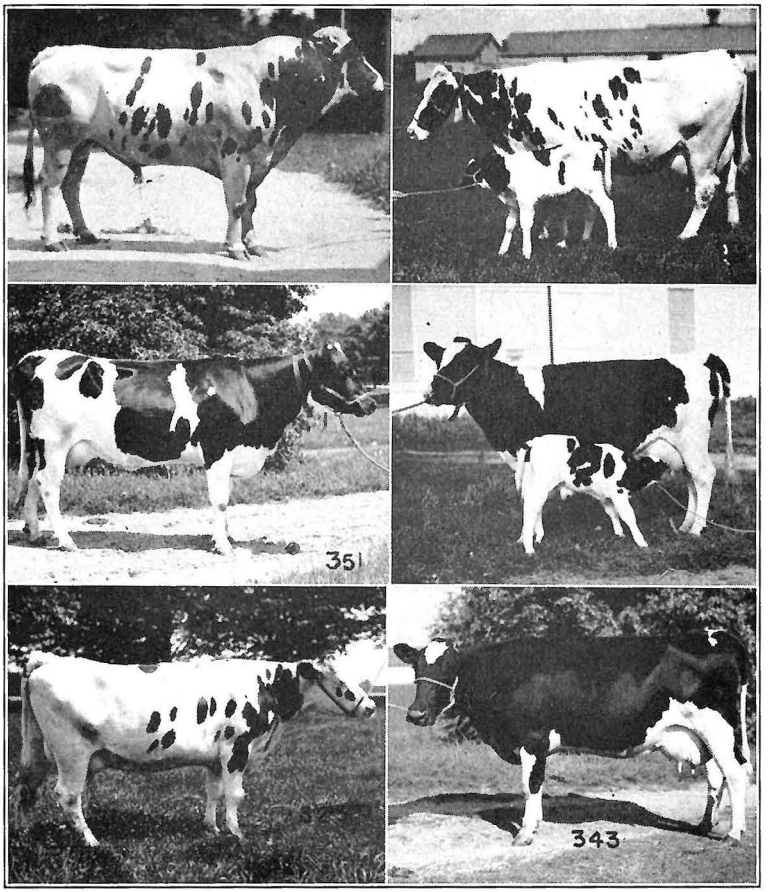


Fig. 22.—Marcella Hengerveld De Kol 6th and daughters.

pounds of milk and 9.5 pounds of fat less than their dams. Nineteen of his daughters, out of daughters of Sire No. 4, produced 8,783 pounds of milk and 338 pounds of fat which were 832 pounds of milk and 42 pounds of fat more than their dams produced.

Six daughters out of selected paternal half-sisters averaged 2,549 pounds of milk and 63.4 pounds of fat less than their dams. He was a better sire than No. 4 but not as good as his own sire. All of his daughters fell short of producing as high an average as did his paternal half-sisters by 883 pounds of milk and 5.6 pounds of fat. One daughter (No. 343) produced 118,615 pounds of milk and 4,952 pounds of fat in her lifetime under ordinary conditions. Her milk averaged 4 per cent fat. None of his daughters were milked more often than twice daily or were pushed for high production.

Holstein Sire No. 6—General Wooster 421759

Born November 1, 1926

Sire

MARCELLA HENGERVELD DE KOL 6th 194887
30 daughters on Station records, first Lactation
8,390 M.—315 F.
in 352 days.
(See No. 5)

MARCELLA HENGERVELD DE KOL 70519
10 A. R. S. O. daughters
20,377 M.—762 F.
20,161 M.—753 F.
19,400 M.—643 F.
15,017 M.—626 F.
Life
140,503 M.—4,793 F.
143,497 M.—4,777 F.
122,379 M.—4,340 F.
113,153 M.—4,260 F.
Two milkings except one year.

HENGERVELD DE KOL 5th
35 A. R. O. daughters:
4 above 80 F. in 30 da.
12 producing sons
13 producing daughters

MARCELLA LOTE 66934
20,410 M.—680 F.
1 son
1 daughter

TINA CLAY DE KOL LAD
3 A. R. S. O. daughters
17,492 M.—592 F.
18,258 M.—533 F.
21,177 M.—710 F.
1—Life
133,463 M.—4,616 F.

GRACE DARLING OF WOOSTER 242861
17,292 M.— 592 F.
86,255 M.—2937 F.
6-yr. period
2 very good daughters.

GRACE DAW 2d 242860
21,177 M.— 710 F.
Life record
133,463 M.—4,616 F.

HENGERVELD DE KOL 5th
(See above)

Dam

GRACE INEZ DE KOL 242866
19,400 M.— 643 F.
Life record
143,497 M.—4,777 F.

MARCELLA HENGERVELD DE KOL 70519
(See above)

MARCELLA LOTE 66934
20,410 M.—680 F.

GRACE DAW 3d 242865
10,396 M.—335 F.
Full sister
21,177 M.—710 F.

TINA CLAY DE KOL LAD
(See above)

GRACE DAW
No test.

General Wooster was a son of Sire No. 5 and out of a daughter of Sire No. 2, which makes him a double grandson of Marcella Hengerveld De Kol. His dam, milked three times daily for one year, produced 19,400 pounds of milk and 643 pounds of fat. She produced during her lifetime 143,497 pounds of milk and 4,777 pounds of fat, being milked twice daily except the one lactation. She was a vigorous cow and always led the herd to pasture. Six of this bull's nearest dams in Advanced Register Semi-Official tests averaged 18,181 pounds of milk and 606 pounds of fat.

General developed into a bull of good type and sired 17 male and 21 female calves in the herd. His rate of services per conception was 2.42 with fertile females.

TABLE 2.—Production of daughters of sire, son, and grandson

	Sire	Daughters	Milk	Fat	Days	4 per cent milk
	No.	*No.*	*Lb.*	*Lb.*		*Lb.*
Sire	2	20	9,273	320.6	352	8,518
Son	5	30	8,390	315.0	352	8,081
Double grandson	6	11	9,265	324.0	334	8,570

Eleven of his daughters in their first lactations averaged 9,265 pounds of milk and 324 pounds of fat in 334 days. Ten daughters, the records of whose dams are available, averaged 9,055 pounds of milk and 318 pounds of fat which were 124 pounds of milk and 8.5 pounds of fat less than their dams produced. Six out of selected daughters of Meadow Holm Jennie King (Sire No. 4) averaged 8,970 pounds of milk and 320 pounds of fat in 346 days which were 140 pounds of milk and 9 pounds of fat less than their dams produced in 337 days. His 11 daughters averaged 1,005 pounds of milk and 33 pounds of fat more than all the daughters of Sire No. 4 which were on normal rations. The averages of the first records of the daughters of this bull, his sire, and grandsire are given in table 2. This includes all daughters on normal rations and in their first lactations. These averages calculated to a mature basis would be above 11,000 pounds of milk and 400 pounds of fat, on two milkings daily.

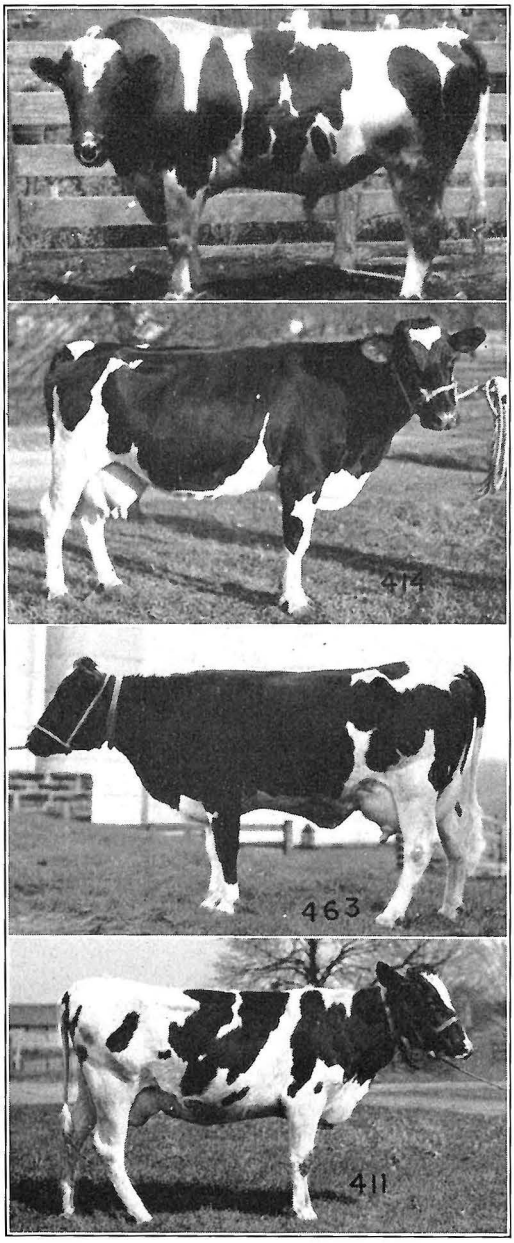


Fig. 23.—General Wooster and daughters.

Holstein Sire No. 7—Aaggie Risinghurst 538864

Born November 20, 1927

Sire

CHAMPION PONTIAC BEAUTY 405976
First at Wayne Co. fair. Good daughters but not tested.

ORRVILLE JOHANNA PONTIAC CHAMPION 67964
Daughters
24,795 M.—849 F.
25,595 M.—796 F.
21,187 M.—658 F.
17,333 M.—582 F.

KING PONTIAC CHAMPION
125 A. R. O. daughters
18 above 20,000 M.

NETHERLAND MONA JOHANNA 76190
21,644 M.—735 F.
2 A. R. O. daughters

BEAUTY MODEL CHAMPION 515796
500 M.—20 F., 7 days.
Capable of a large record.

RISINGHURST JOHANNA ORMSBY DE KOL 100296
34 A. R. O. daughters
2 above 20,000 M.
14 producing sons

ORRVILLE MODEL CHAMPION 408069
504 M.—19 F.
4 A. R. O. daughters

Records of over 20,000 pounds milk appear 30 times in this pedigree.

JOHANNA CONCORDIA CHAMPION 60757
37 A. R. O. daughters
3 above 20,000 M. and 700 F.

RISINGHURST JOHANNA ORMSBY DE KOL 100296
(See above)

LINDENWOOD HOPE 115655
20,404 M.—913 F.

Dam

LADY BELLE JOHANNA ORMSBY DE KOL 515979
23,804 M.—786 F.

SUGAR CREEK PONTIAC 74682
2 good A. R. O. daughters

AAGGIE LADY BELLE DE KOL PONTIAC 238449
525 M.—17.2 F.
90 M. in one day.

AAGGIE JOHANNA DE KOL LYONS
No test
Dam—550 M. in 7 days.

Aaggie was bought as a calf for $50. He was a son of Champion Pontiac Beauty and Lady Belle Johanna Ormsby De Kol 515979. His sire was bought to use in an emergency and the calf was bought at the same time because of the excellence of his dam and her family. Later the dam was bought and given an Advanced Register Semi-Official test in which she produced 23,804 pounds of milk and 786 pounds of fat. She was milked and fed three times

daily. Her full sister looked equally good. This bull's sire was not a sure breeder for a time after removal to the Experiment Station and was soon discarded leaving but one daughter which completed one record, therefore, he is not considered in this report.

Three of Aaggie's nearest dams each produced over 20,000 pounds of milk, three produced 70 pounds in 7 days, and the dam of the seventh produced 78 pounds daily for 7 days. Records from 20,000 to 25,595 pounds of milk appear 30 times in three generations of his pedigree. He developed into a large bull of just fair type. He sired 59 male and 46 female calves and his rate of services per conception with fertile cows was 1.62.

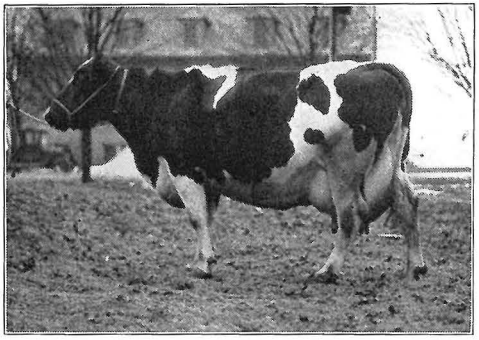


Fig. 24.—Dam of Aaggie Risinghurst. This cow produced 23,804 pounds of milk and 786 pounds of fat on Advanced Register Semi-Official test.

Nineteen of his daughters completed first records, or lactations. The average of these 19 was 9,505 pounds of milk and 343.6 pounds of fat in 334 days. Twelve daughters produced averages of 10,039 pounds of milk and 357 pounds of fat in 333 days, or 1,087 pounds of milk and 38.5 pounds of fat more than their dams in 354 days. The dams of the other seven daughters were on restricted rations and their records are not used. His daughters were large with large bodies and udders but they were rather rough and some of the udders were pendant with large teats. They were generally

good milkers. None were ever fed or milked more than twice daily for high records. This bull did not improve type but did increase production. The six daughters shown in figure 25, when older, produced on two milkings daily from 10,778 to 15,335 pounds of milk and from 414 to 620 pounds of fat.

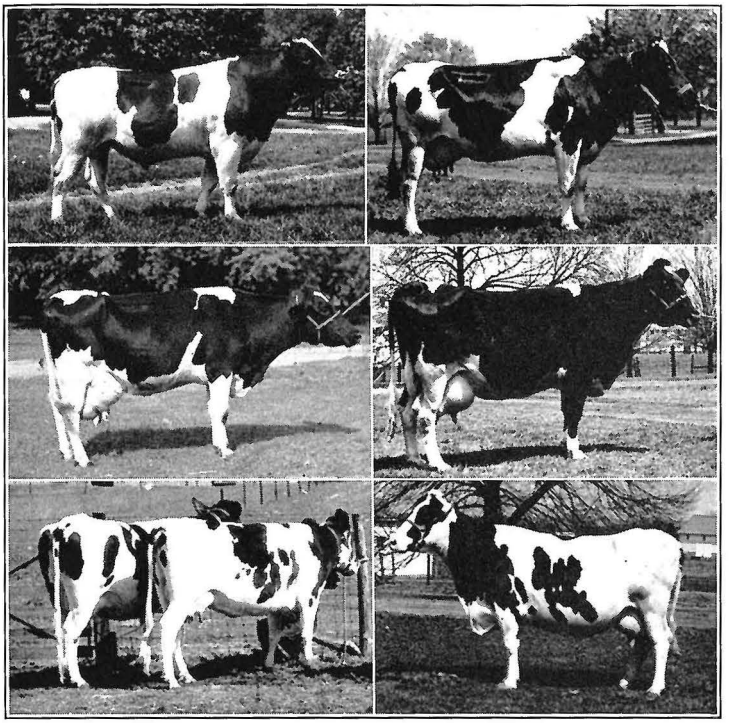


Fig. 25.—Aaggie Risinghurst and daughters. This bull increased production but, as can be seen in this picture, it was at a sacrifice of type.

Holstein Sire No. 8—Ohio Agate 666834

Born April 6, 1932

Sire

AAGGIE RISINGHURST 538864

In nineteen dam-daughter pairs he increased production of daughters over dams by 1,517 M.— 47 F. as 2-yr.-olds.
(See No. 7)

CHAMPION PONTIAC BEAUTY 405976
Daughters not tested.

ORRVILLE JOHANNA PONTIAC CHAMPION
3 above 20,000 M. and 658 F.

BEAUTY MODEL CHAMPION
500 pounds milk in 7 days.
Capable of large record.

LADY BELLE JOHANNA ORMSBY DE KOL 515979
23,804 M.—786 F.
66,624 milk after 9 years of age, Station records.

RISINGHURST JOHANNA ORMSBY DE KOL 100296
34 A. R. S. O. daughters
6 above 18,000 M.
Probably the best bull used in Wayne Co.

AAGGIE LADY BELLE DE KOL PONTIAC
525 M. in 7 days.
90 M. in 1 day

Dam

GRACE MARCELLA DE KOL 6th 1065441
14,205 M.— 568 F.
Life:
118,615 M.—4,952 F.
4 2-year-old daughters
11,194 M.—391 F.
10,948 M.—385 F.
10,711 M.—415 F.
10,121 M.—425 F.
All in class C.

MARCELLA HENGERVELD DE KOL 6th
(Sire No. 5)

MARCELLA HENGERVELD DE KOL
10 A. R. S. O. daughters
Station life records:
143,497 M.—4,777 F.
140,503 M.—4,793 F.
122,379 M.—4,340 F.
113,153 M.—4,246 F.

GRACE DARLING OF WOOSTER
17,292 M.—592 F.
2 fine daughters.

GRACE MARCELLA DE KOL 242864
22,161 M.— 752 F.
Life
122,379 M.—4,340 F.
2X except 1 lactation.

MARCELLA HENGERVELD DE KOL
(See above)

GRACE DAW 2d 242860
21,177 M.— 710 F.
133,463 M.—4,616 F.
Daughters
140,503 M.—4,793 F.
122,379 M.—4,340 F.

Agate was a son of Aaggie Risinghurst (Sire No. 7) and Grace Marcella De Kol 6th, a daughter of Sire No. 5 and a double granddaughter of Sire No. 2. He was backed by the records shown in table 3.

TABLE 3.—Records of dam and granddams of Sire No. 8

	One year		Life records	
	Milk	Fat	Milk	Fat
	Lb.	*Lb.*	*Lb.*	*Lb.*
Great granddam	21,177	710	133,463	4,616
Granddam	22,161	752	122,397	4,340
Dam	14,205	568 C (2X)	118,615	4,952
Paternal granddam	23,804	786 B	100,000+	.....

Agate sired 13 sons and 30 daughters. His rate of services per conception was 2.0 with fertile cows. Eight daughters were used in experiments and were slaughtered or died. Eight were lost in an outbreak of Bang's disease before completing one record, five daughters died or were sold as calves. Only eight completed first lactations. Their average production was 8,531 pounds of milk and 308 pounds of fat in 333 days. One of these was lost by Bang's disease before her record was completed (280 days). These records are not compared to those of their dams because four of the dams were on restricted rations. His daughters did not do as well as expected.

He served some infected heifers, reacted to the blood test, and was sold for beef.

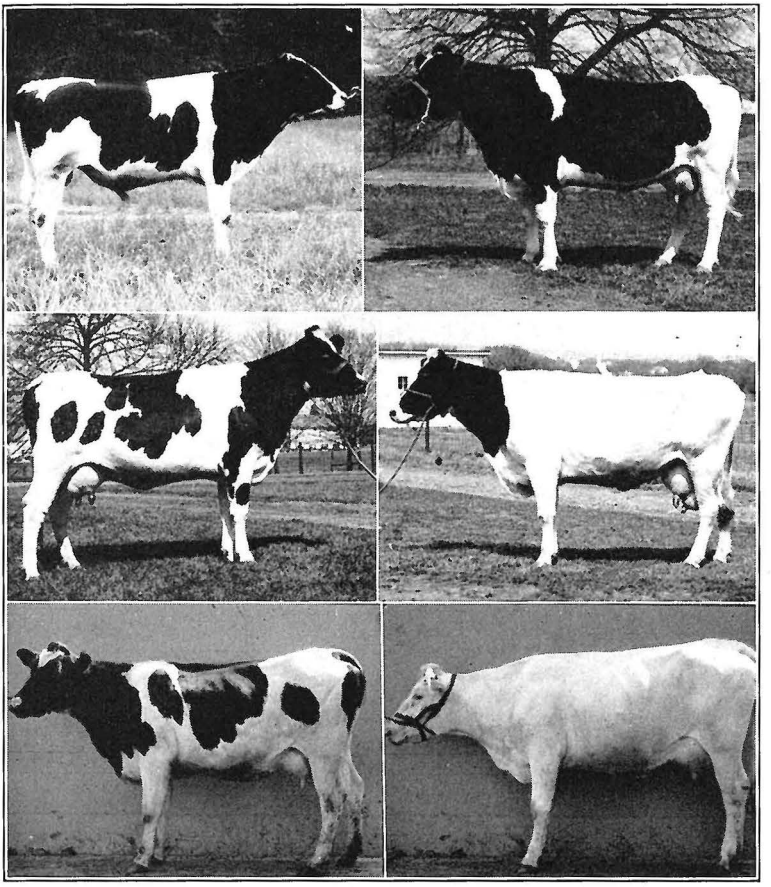


Fig. 26.—Ohio Agate and five daughters.

Holstein Sire No 9—Experimental Fobes 708254

Born April 3, 1935

Sire

GOVERNOR FOBES POLKADOT 608003
9 daughters averaged
15,545 M.—537 F.
3 A. R. sons

GOVERNOR FOBES IDYL 554951
Good daughters but none tested.

ELSIE COLANTHA POLKADOT 1062233
31,244 M.—1,022 F.
Daughters
22,887 M.— 765 F.
22,218 M.— 764 F.
15,083 M.— 483 F.
1 son

GOVERNOR FOBES 389492
11 above 20,000 M.

IDYL KORNDYKE QUEEN 700305
20,694 M.—834 F.

BLUEBIRD COLANTHA GENERAL 341494
5 A. R. S. O. daughters
31,244 M.—1,022 F.
24,359 M.— 800 F.
25,220 M.— 754 F.
19,730 M.— 681 F.
18,766 M.— 633 F.

WINDSOR E. H. WIRDUM 439106
No test.

Dam

RUBY DELLA ORMSBY INKA 1523983
24,927 M.—760 F.
19,380 M.—656 F.
19,728 M.—652 F.
1 producing son

ORMSBY KING DELLA FOBES 441086
Daughters
32,181 M.—1,181 F.
24,615 M.— 810 F.
24,927 M.— 760 F.
19,948 M.— 712 F.

RUBY DELLA OLLIE INKA 445179
23,116 M.—808 F.
Daughters
20,324 M.—742 F.
24,927 M.—760 F.
20,727 M.—806 F.

AMBASSADOR FOBES 337162
31 A. R. O. daughters
10 above 700 F.
7 producing sons

PRINCESS DELLA 3d 571568
26,213 M.—968 F.
Daughters 829 and 480 F.
2 producing sons.

SIR OLLIE PONTIAC INKA
4 A. R. O. daughters

RUBY DE KOL SARCASTIC 5th 238931
No test.

This was a son of Governor Fobes Polkadot 608003 and Ruby Della Ormsby Inka. He was bred by S. Miller of Swanton, Ohio, and cost $100. His dam produced three records from 19,728 pounds of milk and 656 pounds of fat to 24,927 pounds of milk and 760 pounds of fat. His two granddams had records of 31,244 pounds of milk with 1,022 pounds of fat and 23,116 pounds of milk with 809 pounds of fat. His dam had two paternal and one maternal half-sisters with records above 20,000 pounds of milk. He was a vigorous calf and developed well until 1 year of age. At about 18 months of age he developed a "crampy" condition, particularly in the rear

quarters, which gradually grew worse until he became useless and had to be disposed of. His sire developed similar trouble but his owner thought he had been hurt. Later it was learned that his grandsire had the same ailment and it is reported to have shown up in another bull from the same line of breeding. It has not appeared in any of his daughters. Only two or three of his sons were sold for breeding purposes and there has been no report of similar trouble with these. It will be recalled that Sire No. 4 had stifle trouble which was transmitted to some of his offspring.

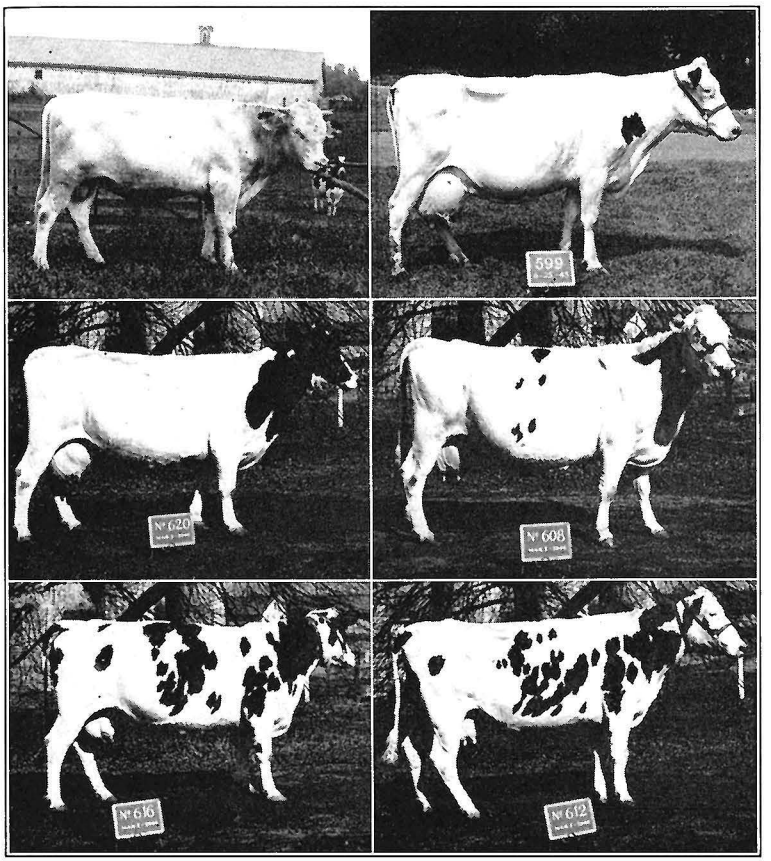


Fig. 27.—Experimental Fobes and five daughters.

Experimental Fobes sired 28 males and 15 females. Nine daughters completed first records which averaged 9,994 pounds of milk and 367.9 pounds of fat in 346 days. Eight of these, the records of whose dams are available, averaged 68 pounds of milk

and one pound of fat less than their dams which were a selected lot. His daughters became large strong cows with large capacity and were good milkers. They carried no surplus flesh. None of them were tested for high production but they have been about the best producers among the daughters of the Holstein sires considered in this report. They were not as good in type as the daughters of some of the other sires.

Holstein Sire No. 10—B. C. Romeo 759451

Born June 27, 1937

Sire

SIR ROMEO MILDRED COLANTHA 6th 70275 (CAN.)
162 R. O. P. daughters
Top R. O. P. sire in Can.
298 records average
17,800 M.—611 F.
69 classified:
32 Gold Medal
25 Excellent
11 Good
1 Fair

SIR ROMEO MILDRED COLANTHA 414461
All American in 1922-23
All 32 daughters averaged
16,031 M.—509 F.

SIR ROMEO FAYNE 34334 (CAN.)
25 daughters
23 averaged
16,056 M.—557 F.
14 producing sons

MILDRED COLANTHA ENA.
569 M.—23.4 F., 7 days
3 R. O. P. daughters
2 producing sons

HAZELWOOD ORMSBY KORNDYKE DE KOL 290090
478.8 M.—18.66 F., 7 days
Looked good at 16 years
2 R. O. P. daughters
3 producing sons

HAZELWOOD POSCH ORMSBY
4 A. R. daughters
1—26,812 M.—1,007 F.

MISS KORNDYKE DE KOL ORMSBY 109165
459 M.—13.5 F., 7 days

Dam

COLONY VALE KORNDYKE KOBA 109737 (CAN.)
24,056 M.—850 F. 305 days
3—20,822 M.—727 F.
Gold Medal
Life
147,694 M.—5,155 F.
5 daughters
13,159 M.—457 F.
4 Granddaughters
17,085 M.—591 F.

COLONY KOBA McKINLEY 31520 (CAN.)
In "Extra" class R. O. P.
All 72 daughters, 148 Records average
15,620 M.—529 F.
Increased production.
5 over 100,000 M.

COLONY McKINLEY SEGIS DE KOL 170837
28 daughters
58 records average
17,793 M.—588 F.
6 above 20,000 M.

KOBA DE KOL 21672 (CAN.)
2 records average
17,257 M.—544 F.

COLONY VALE KORNDYKE NEWMAN 60024 (CAN.)
2 records average
15,427 M.—559 F.
2 daughters

AAGGIE KORNDYKE NEWMAN 80744
38 daughters
35 with 79 records average.
16,301 M.—547 F.
10 above 700 fat.
5 producing sons

COLONY POETESS KORNDYKE 2d 36012
3 records
13,265 M.—482 F.
2 R. O. P. daughters

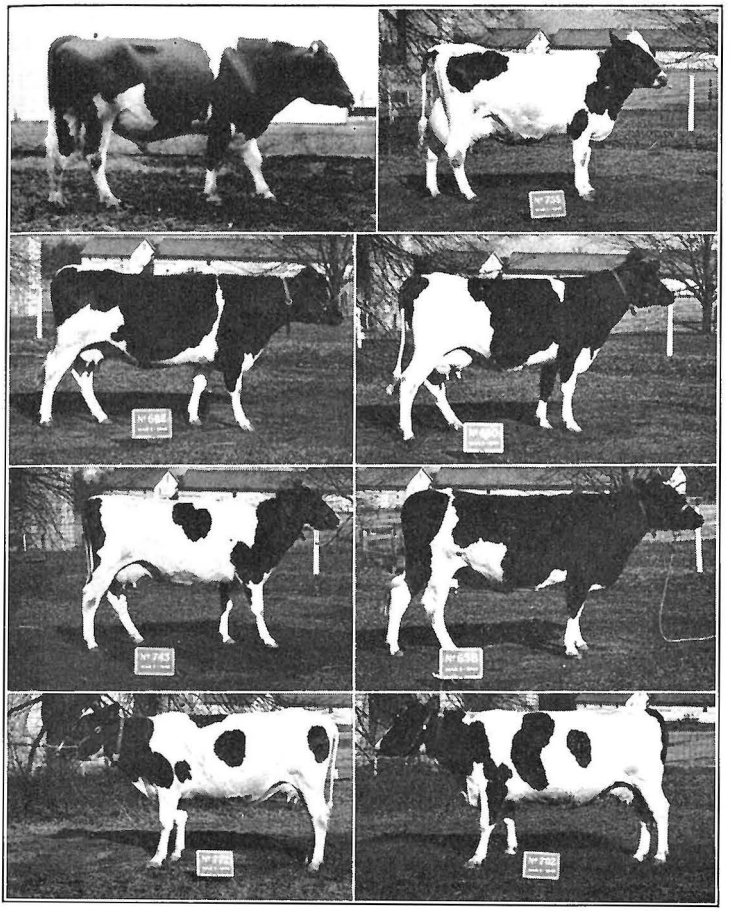


Fig. 28.—B. C. Romeo and seven daughters.

Romeo was bred at Colony Farms, Essondale B. C. He was a son of Romeo Mildred Colantha 6th with over 160 Register of Production daughters (the top Register of Production sire of Canada). Romeo's dam was Colony Vale Korndyke Koba, a show cow with a 305-day record of 24,056 pounds of milk and 850 pounds of fat and a life record of 147,694 pounds of milk and 5,155 pounds of fat.

Romeo had 7 or more paternal half-sisters with over 100,000 pounds of milk. He had 5 good maternal half-sisters and his sire increased fat production 72 pounds over the dams. He developed into a bull of fair type and sired 30 male and 28 female calves. His rate of services per conception was 1.86 with fertile cows. His daughters were generally inferior to their dams in body type and shape of udders and they lacked uniformity.

Fourteen of his daughters have completed first records which averaged 9,601 pounds of milk and 350 pounds of fat as 2-year-olds. Some heifers had been culled out before making records. There were 13 daughter-dam pairs in which the daughters averaged 9,677 pounds of milk and 357 pounds of fat and the dams averaged 9,830 pounds of milk and 360 pounds of fat, which is practically equal.

Romeo's effect on the herd was disappointing and he was sold for beef.

Summary of Holstein-Friesian Sires

A summary of the production of the daughters of the Holstein sires is presented in table 4. The gain or loss by the daughters compared with the daughters of preceding sires and with their dams are shown. The production of the daughters, calculated to a 4 per cent fat basis, is shown graphically in figure 29.

TABLE 4.—Summary of production of daughters of Holstein Sires

Sire No.	Number of daughters	Average production of daughters, first records			Higher or lower than daughters of preceding sires			Higher or lower than their dams			
		Milk	Fat	Days	Milk	Fat	Days	Pairs	Milk	Fat	Days
		Lb.	*Lb.*		*Lb.*	*Lb.*			*Lb.*	*Lb.*	
1	9	7,840	253.0	356	.....	.....	.....	7	+ 608.3	+16.9	+23
2	20	9,273	320.6	352	+1,433	+67.6	— 4	20	+1462.2	+62.6	+14
3	6	7,835	284.4	347	—1,420	—36.2	— 5	6	—1200.4	—19.6	—12
4*	14	7,914	286.8	333	+ 61	+ 2.4	- 14	12	— 395.0	— 0.47	— 4
5	30	8,390	315.5	352	+ 476	+28.2	+19	23	— 461.4	— 0.8	— 7
6	11	9,265	324.3	334	+ 875	+ 9.3	—18	10	+ 124.7	+ 8.54	—13
7	19	9,505	343.6	334	+ 240	+19.3	0	19	+1517.4	+47.4	- 20
8	8	8,531	307.8	333	— 974	—35.8	- 1	4	— 340.2	—12.5	+ 7
9	9	9,982	365.5	344	+1,451	+57.7	+11	8	— 86.5	— 2.1	+ 8
10	14	9,601	350.0	333	— 381	—15.5	— 6	13	— 153.0	— 4.0	.....

*This sire had 23 daughters but nine were on restricted rations.

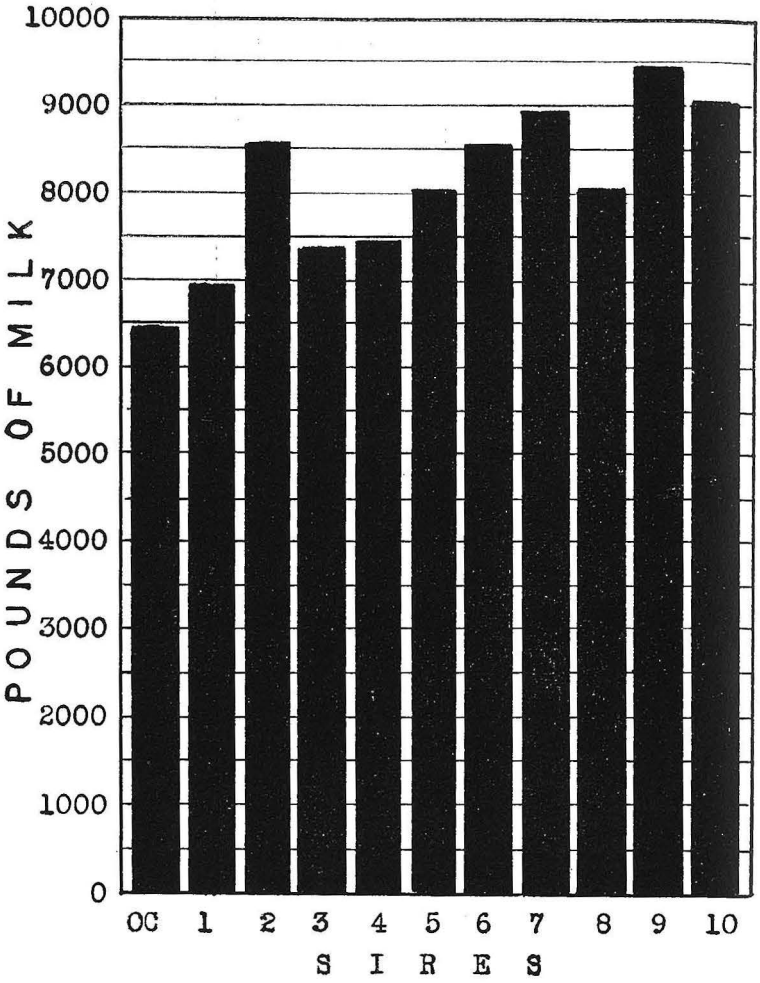


Fig. 29.—Comparative production of milk (calculated to a 4 per cent basis) by the daughters of the various Holstein sires. OC indicates original Holstein cows.

Conclusions

In writing this history, an attempt has been made to give a fair comparative picture of the results from the use of the various sires. There were interfering factors such as disease, experiments with restricted rations, and others, but an attempt was made to eliminate these as far as possible. The results are about what dairymen may expect from the use of sires selected as calves, even when they are backed by good records. Fair production may be obtained most of the time but it is not easy to maintain a high producing herd by selecting unproved sires on the basis of their line of breeding and the production of their direct female ancestry. This is easy to understand for the production of the daughters or sons of outstanding cows may be expected to vary about the average of the family or line from which they come.

Let us repeat that a sire whose daughters equal their dams in production is generally a better transmitter of productive ability than the dams with which he was mated and really improves the transmitting ability of the herd, because the cows in any reasonably good producing herd are a selected lot. Their transmitting ability is lower than their producing ability and the sire must overcome this handicap before he can increase production. This factor has affected the results from the sires in this report as shown in the summary tables.

It will be recalled that only one of the 22 unproved sires reported cost above $200, some of them $50. These are about such prices as most dairymen pay.

The daughters of only the first three Jersey and the first four Holstein sires averaged below 300 pounds of fat as heifers milked twice daily. A heifer which exceeds 300 pounds of fat under these conditions is not a bad heifer.